Tap Forms Mac

5.3 — Last update: Jan 23, 2024

Tap Zapp Software Inc.

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1. Overview

Tap Forms is a one-of-a-kind database tool meant to organize anything in your life. Built on years of development and user feedback, Tap Forms safely stores your information and provides a virtually endless set of tools and customization options.

We like to think of Tap Forms as a digital filing cabinet for your movies, accounts, expenses, recipes, and everything else in your life. It's uses are only limited by your imagination. Much of what you add to Tap Forms will be individual pieces of an overall collection – like a movie collection. Each movie is representing by a "record", which is comprised by that movie's individual qualities or characteristics, represented by "fields". Tap Forms isn't just for movies, though – anything you own, use, or need recorded can be dropped into Tap Forms at a moment's notice.

Because Tap Forms supports a wide variety of data entry options, it's critical that you have the tools necessary to best view and use your data. Throughout this guide, you'll see articles spanning the entirety of the Tap Forms experience, detailing how the features work and what they can be used for.

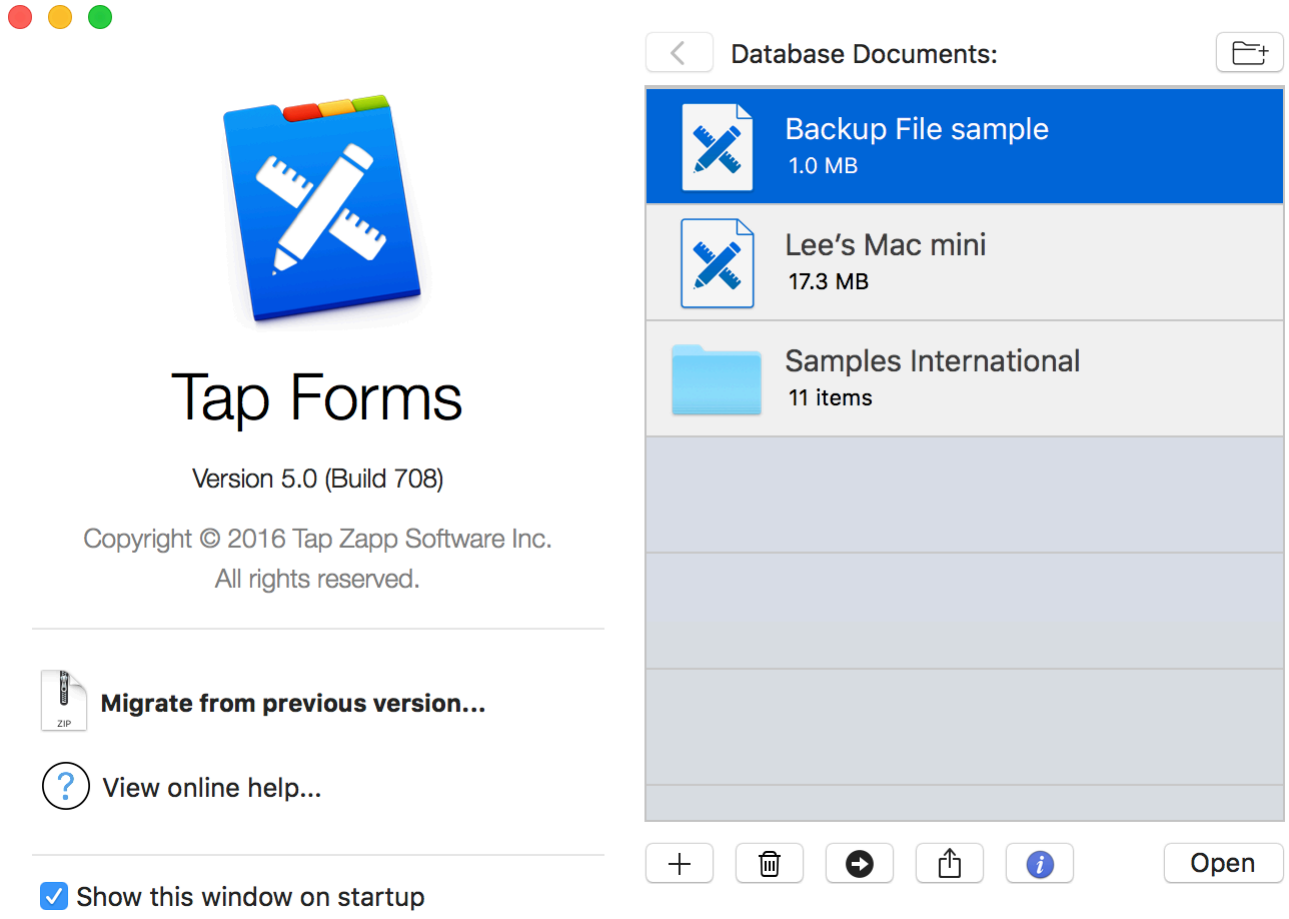
Ready to join the thousands of happy Tap Forms users? Purchase Tap Forms for Mac either directly or in the Mac App Store. Tap Forms is also available for iOS in the App Store.

If you're interested in spending time with Tap Forms before making the final purchase, you can do so by downloading a free trial version. After you've completed the trial period, you'll then need to purchase a

license to use the app.

Last modified: Aug 26, 2018

2. Database Documents



Database documents are the containers for all the information you create in a particular Tap Forms document. These contain all **forms**, **records**, and **fields** you've added, and can be **imported**, **exported**, and opened at will. Database documents are made up of both an SQLite database file along with any photos and file attachments.

For the majority of your Tap Forms usage, you will likely have few interactions with the ins and outs of database documents; when you launch the app, you'll simply choose which one you'd like to open and continue working with your data inside the document. However, there are times where you'll need to work with database documents, either through migration, creation, deletion, etc.

To find the location of your documents, either select one and click the **Show in Finder** button at the bottom of the list of documents, or you can find them here:
`~/Library/Containers/com.tapzapp.tapforms-mac/Data/Documents`
To get there:
1. Copy the above path.
2. In the Finder, press command-shift-g or click on the Go menu and select Go to Folder…
3. Paste the above path into the field.
4. Press the Go button.

After launching Tap Forms, you'll see the list of database documents you've created as well as the various sample forms. Here, you can use any of the buttons found at the bottom of the window to interact with database documents, including options to **Add**, **Duplicate**, **Delete**, **Show in Finder**, **Send Document to another device**, and **Show Document Info**. To interact using any of these functions, select the database document and choose one of the listed options.

As the foundation of Tap Forms, database documents are eligible for **syncing** and **migration** across different versions of the app. Documents with sync properly set up will automatically display on the iOS and Mac versions of Tap Forms, allowing you to work seamlessly and with updated copies of your forms whenever necessary. And since database documents can be exported and backed up, you'll always be able to take your documents with you instead of needing to create new versions of your forms.

Database documents can also be locked and encrypted to protect any valuable data stored within them. **To do this, follow the instructions outlined in the Security topic.**

Last modified: Jan 15, 2020

3. Forms

In the “**Forms**” topics, you’ll receive an explanation of how forms work, what they are used for, and the pre-built forms we’ve created to ease your early work in Tap Forms.

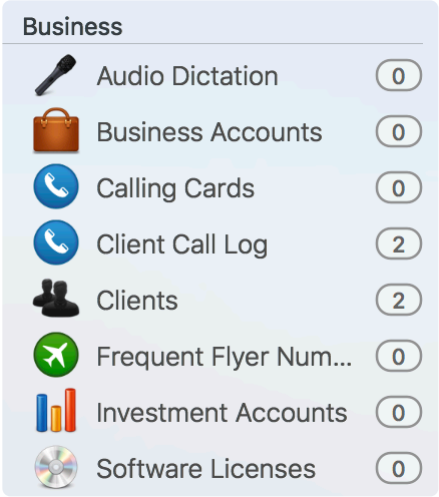
Forms

- What are Forms?
- Pre-built Forms

Last modified: Jun 07, 2018

3.1. What are Forms?

In Tap Forms, **forms** are the overarching categorization method used for the information you’re looking to record. With forms, you’ll think about the big things you want to log – “Photo Library”, “Book Collection”, “Cars” – and create individual items for each piece of your collection.



To create a form:

1. Click the + button at the top left of the window
2. Enter your form’s name and select an appropriate icon

Forms consist of **records**, which are the list of inclusions within your collection. If you were inputting your book collection, for example, one record might be called “The Tipping Point”. These records do the cataloging in Tap Forms – they’ll be the indicators for what you have saved.

But since you’re putting in the work to record information, you’ll likely want to add more than just the title of something. That’s where **fields** come in; fields can have a variety of functions that provide in-depth information about your records. For example, fields can contain text, photos, audio recordings, check boxes, locations, notes, web sites, and more. By adding fields to your records – and, in turn, your forms – you can

log lots of useful data.

Forms are grouped by **categories**, which you'll see on the left side of the window. Categories are used to organize forms under specific headers, like "Home", "Work", etc.

With forms, you can customize how your data is displayed through sort options and view fields. If you need your forms to do any calculations, you can define these rules, too.

Last modified: Jun 07, 2018

3.2. Pre-built Forms

To spark ideas and provide easy access to commonly used forms, Tap Forms offers 33 pre-built forms for you to use or copy into your own form. Though it's unlikely that these forms will encompass all your needs within the app, their incorporation of fields can be a great launching point for your record-keeping.

The list of pre-built forms is found in the **Sample Forms** document under the **All Forms** dropdown menu. The majority of forms will not contain any records, but will have relevant fields appropriate for the selected form. Some forms *will* have records as examples of how you might be able to use the form.

Because the **Sample Forms** database document is aimed to be representative of what a typical set of forms might look like, forms are also organized into categories and utilize fields and pick lists. This allows you to see how the pre-built forms could be categorized should you import them into your own document.

> On the iOS version the **Sample Forms** document is not installed by default. But you can install them from the **Documents** view by tapping on the action menu button, then tapping on **Install Sample Files**. An English version of the Sample Forms document as well as the International versions of the Sample Forms document will be installed.

If you've already created a database document, it will not feature any of the built-in forms. You can, however, add any of the forms by following instructions outlined in the Exporting topic.

Below is a list of the forms that Tap Forms offers:

- Audio Dictation
- Business Accounts
- Calling Cards
- Client Call Log
- Clients
- Frequent Flyer Numbers
- Investment Accounts
- Software Licenses
- Bank Accounts
- Blood Donor Cards

- Credit & Debit Cards
- Daily Journal
- Driver's License
- Email Accounts
- Health Insurance
- Home Inventory
- Homework Assignments
- Important Dates
- Passport Information
- Personal Health Cards
- To do
- Website Logins
- Garage Door Code
- Home Insurance
- Log Book
- Loyalty Cards
- Memberships
- My Movie Library
- Security Alarm Codes
- Serial Numbers
- Vehicle Insurance

If you would like to use any of the sample forms within your own database document, you can use the **Export Tap Forms Archive** or **Export Form Template** commands under the **File** menu to save them to your drive. Then use the **Import Tap Forms Archive** or **Import Form Template** commands to import them into your own document.

Last modified: Feb 12, 2019

4. Form Organization

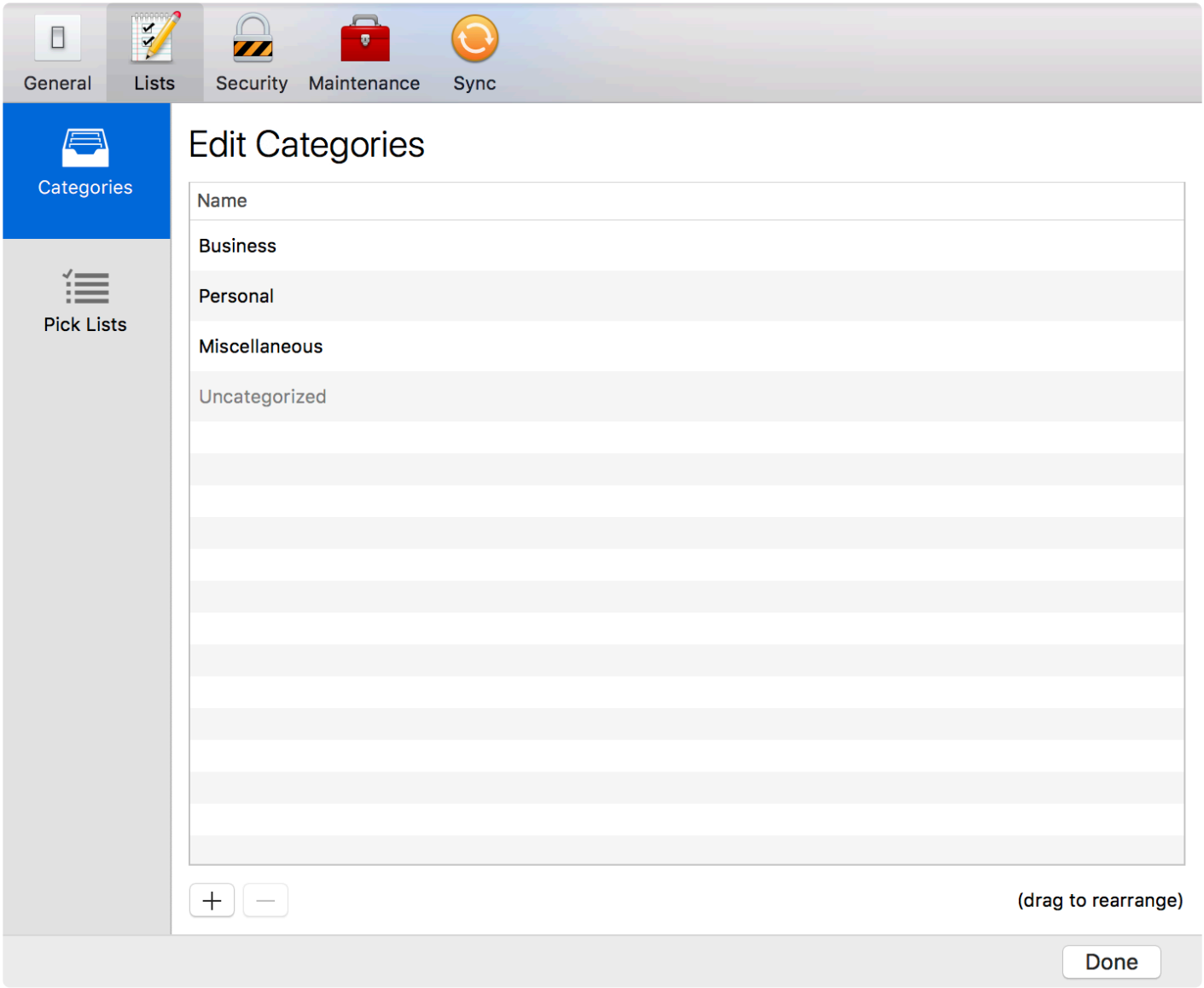
In these “**Form Organization**” topics, we’ll discuss how categories and pick lists can help organize forms and the ideas within those forms. Found in the same section of Preferences, these are two key organizational tools.

Form Organization

- Categories
- Pick Lists

Last modified: Jun 07, 2018

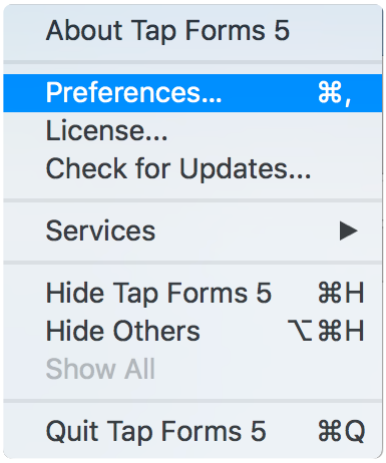
4.1. Categories

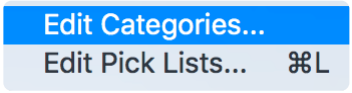


Though **forms** tend to be the overarching categorization tool in Tap Forms, it's also important that you are able to find them as easily as possible. With **categories**, your forms live in a basic organizational structure that you create – still in the sidebar, but each classified alongside similar forms.

To access the categories pane, you can either:

- Click Tap Forms Mac 5 in the menubar > Preferences > Lists > Categories
- Click Tools in the menubar > Edit Categories





Adding and Deleting Categories

When you're in the categories menu, you'll add categories via the **+ icon** near the bottom of the window. Once clicked, Tap Forms will prompt you to enter a title; when you're finished, press the **Return key** to save the category. To rearrange categories you've created, drag one above or below another. This change will be reflected in the Forms sidebar.

> To change a category's title, double click its name.

Next to the + icon sits the **delete (-) button**, which will delete the currently selected category. This action will permanently remove the category from Tap Forms, but will not delete the forms associated with the category. In the event of an accidental deletion, you can simply recreate the category and re-add the forms.

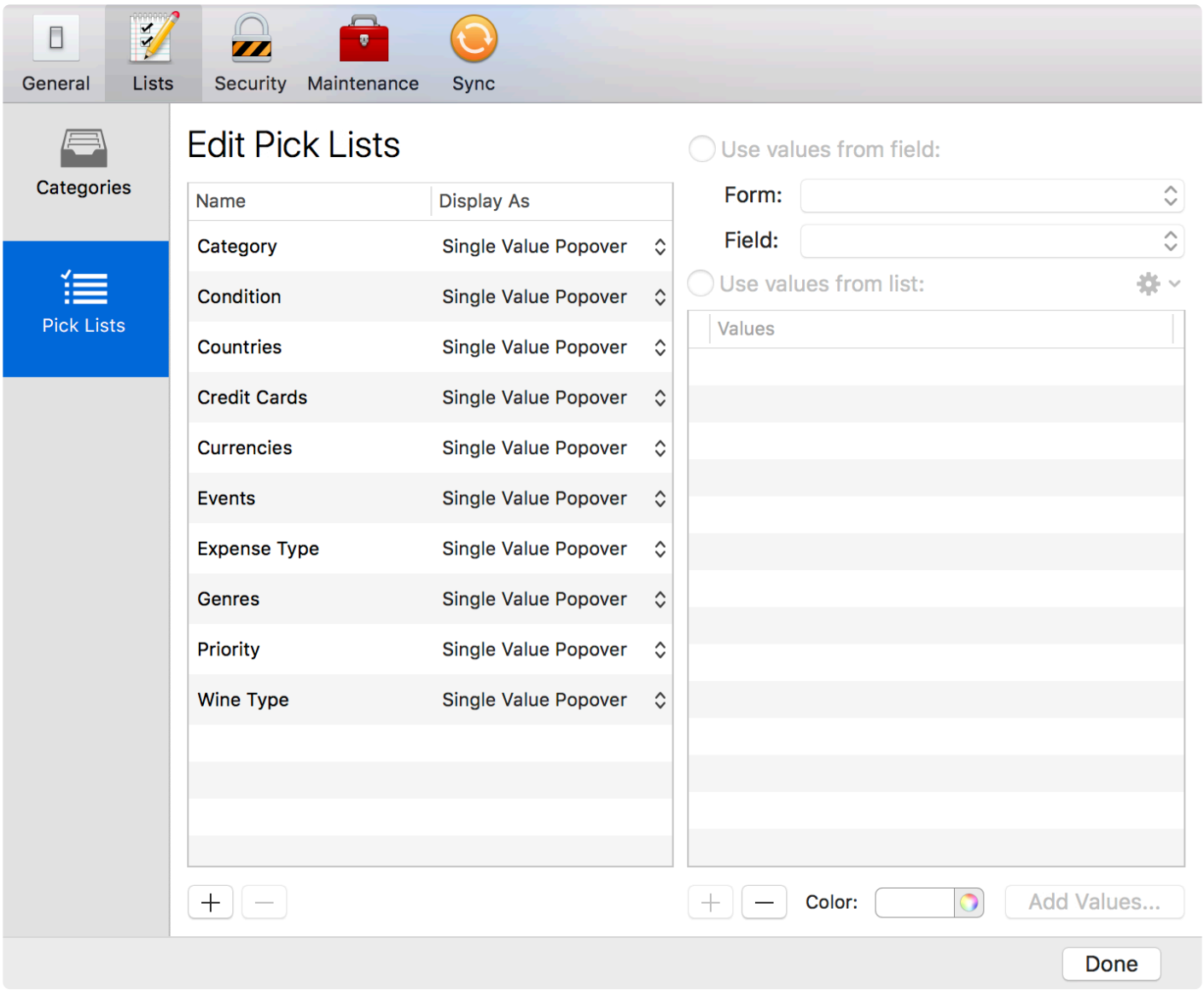
After you've created forms, they'll be added to the Forms List sidebar under the "**Uncategorized**" header. If you have other categories, you'll see those options above "Uncategorized".

When you have a form you'd like to add to a category, you can go about that in two ways. Either:

- Tap on the form and open the Form sidebar. Below the name of the form, select your category from the dropdown menu
- If one or more forms already belong to the category in the Forms List sidebar, drag the form from "Uncategorized" to below the appropriate header.

Last modified: Apr 06, 2020

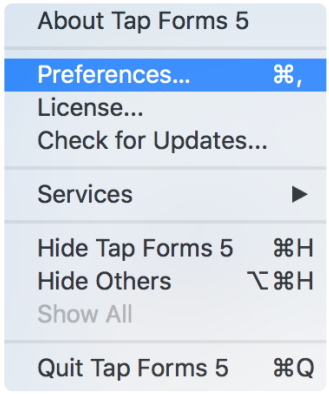
4.2. Pick Lists

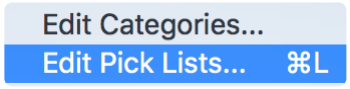


For text and numbers **fields**, the typical input is through basic entry via the keyboard. However, for fields with long or specific numbers, titles, labels, etc., **pick lists** offer the convenience needed to quickly categorize your data. With pick lists, you can create a set of options that, when one is selected, can populate a field. This eliminates the need to reference other records for spelling or previously created

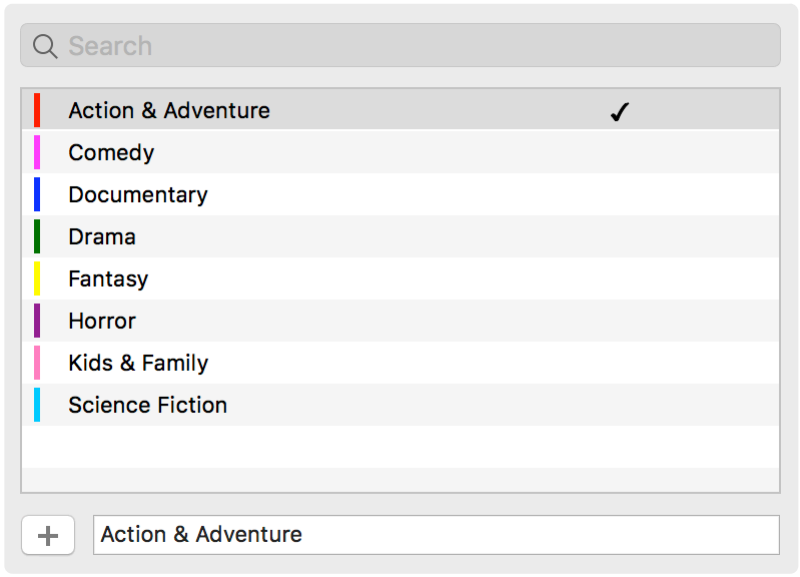
options.

Pick lists are managed in the Preferences under the “**Lists**” tab, either accessible from the Tap Forms 5 dropdown menu in the macOS menubar or by navigating to **Tools > “Edit Pick Lists…”**.





Pick lists, which display in the small white area next to a field in a record, are assigned values either from list or from field. **From list** values are ones that you’ll create based on what’s relevant to your field, like a set of numbers or the various genres in your movie library. **From field**, on the other hand, uses values from another form’s fields to assign values to the pick list.



There are six different styles of Pick Lists under the “Display As” column heading.

1. **Single Value Popover** – This is the default style where Tap Forms will display a popover view that allows you to select a single value.
2. **Multi-Value Popover** – A multi-value pick list will allow you to select more than one value to assign to

a field.

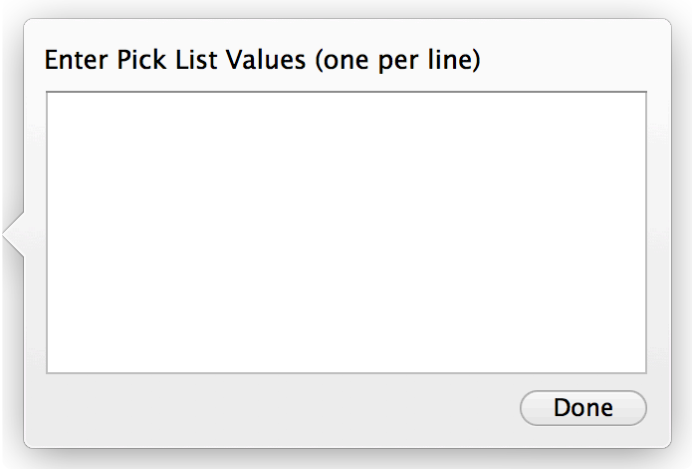
3. **Combo Box** – This gives you a popup button that also has a type-ahead text field as part of it. You can type a value and Tap Forms will fill in the rest or you can click the arrow (or press the down arrow key on your keyboard) to display a list of possible values.
4. **Popup Button** – This gives you a popup button that contains the list of values available. You can select a single value from the popup button.
5. **Checkbox Button** – This provides a set of checkboxes in a grid format. The grid is determined by the "**Checkbox/Radio Columns**" property in text and numbers fields and is a great tool for displaying different options in different forms in the same way.
6. **Radio Button** – This is similar to the checkbox button option, but will instead display radio buttons.

After you've created your pick list, you'll need to assign it to the appropriate text or number field. In the Forms sidebar under the Field tab, select the field and navigate to the bottom of the sidebar. There, you'll see a dropdown menu to select your pick list. Pick lists can be assigned to one or more fields.

Use values from list:

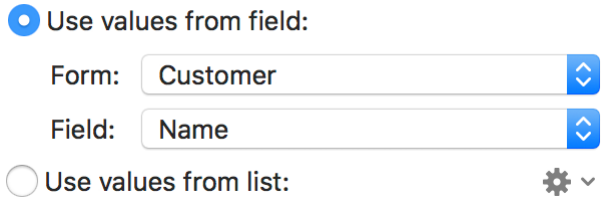
To add a new value to the selected Pick List, click the + button beneath the values list.

If you have lots of values to add to a Pick List, it would be much quicker to click the **Add Values…** button and type your new values into the popover that is displayed. You can even paste values into the popover if you already have a list of values on your clipboard.



Use values from field:

You can also choose to get the values for your Pick List from another form's field. To do that, click on the **Use values from field** radio button, then select a Form and a Field.

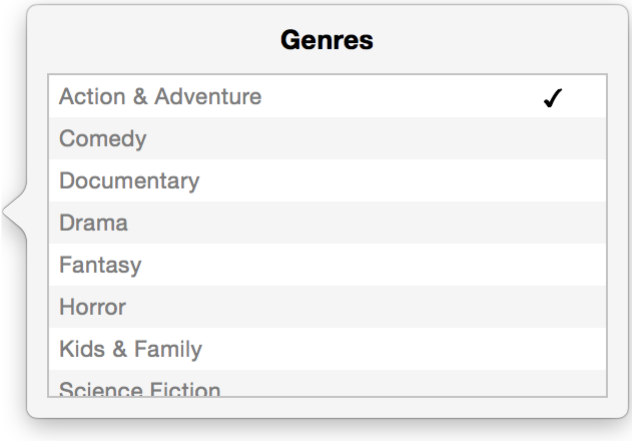


Whenever you add records to the selected form and put values into the selected field, they will become available to you in this type of Pick List.

To associate a Pick List with a field:

1. Click the form you want to edit.
2. Click the Form button in the toolbar.
3. Click the Fields tab.
4. Click the field that you'd like to assign the Pick List to.
5. Scroll to the bottom of the properties for the selected field and click the Pick List popup button.
6. Select the Pick List from the popup button.

You will now see the pick list button appear next to the field in the Default Layout, your custom layouts, and the multi-column list view.



Last modified: Jan 31, 2021

5. Fields

The following topics are about the all-important fields, which make records and forms the versatile organizational tools they are. Throughout the topics are explanations on their utility and the ins and outs of how they can be used.

Fields

- Field Types
- Editing Fields
- Calculations

Last modified: Jun 07, 2018

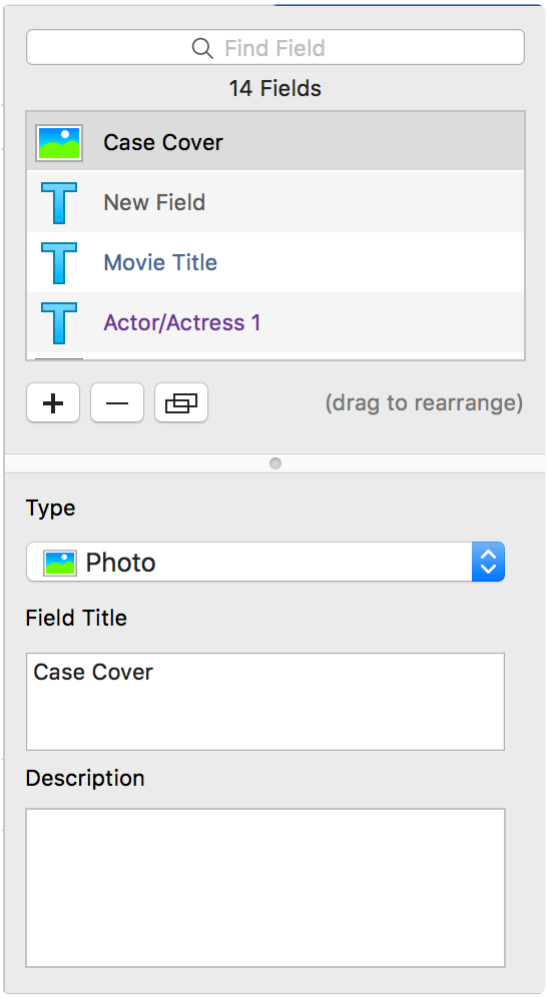
5.1. Editing Fields

With 25 fields, Tap Forms can be extraordinarily flexible for your data. However, when there are still field configurations that you'd like to make to better serve your inputs, you can do so by editing field behavior.

First, you'll need to add a field to your record. To do this:

1. Open the Form panel and click the "Fields" tab
2. Click the + button beneath the field list
3. Choose the field type
4. Provide the field title

For fields that have already been created, select one to edit its name, description, and label color. Additionally, there are options to require the field during record creation and show the title on the list view, both activated by a check box.



You can also move fields up and down to change how they appear on the Default Layout. To do that, just click and drag the fields up and down and position them where you want them to be. The order they're listed in the Fields tab is the same order they'll appear on the Default Layout.

To move fields on the multi-column list view so their column position changes, see the Multi-Column List View topic.

While the above attributes will remain the same as you switch between field types, each field also features its own unique set of settings that allow you to further customize its functionality. For example, the Number field contains options for incrementation, number format, currency, and more. Through reviewing and updating each field's individual choices, you can better understand how the fields can work for you.

Last modified: Nov 14, 2018

5.2. Field Types

Tap Forms has 26 different field types. Each field type has its own set of properties that can be set in order to customize the way Tap Forms displays and edits your data.

The following table describes all the field types available in Tap Forms.

Icon	Field Type	Description
	Text	Text fields store small amounts of text. For example, a text field might be a movie title or short description.
	Number	Number fields display numeric data. They can be configured to format the display as currency, decimals, percentages, scientific notation, spell out (e.g. “twenty four ninety nine”), or as a duration (e.g. “10 hrs, 3 mins” or “10:03”). Numbers are also useful in calculations where you require a numeric result.
	Date	Date fields will display the month, day, and year. The display format used depends on your Region Format settings in the System Preferences. In general, Tap Forms uses the Medium date format to display dates.
	Time	Time fields will display the hours and minutes and AM or PM. This also depends on your region settings. If you have 24-hour mode enabled, you will not see AM or PM. Tap Forms uses the Short time format to display times.
	Date & Time	Date & Time fields are a combination of the Date and the Time fields displayed in a single field. The Date part will use the Medium date format. The Time part will use the Short format. By adding a Date & Time field to your form, you can also enable the Alerts function in Tap Forms. With the Alert function, you can tell Tap Forms to notify you at the specified date and time. You can also include a short note which will be displayed along with the notification. Alerts can be scheduled to repeat at a variety of frequencies. These options are available when you’re editing a date value in your record.

	Date Created	Tap Forms keeps track of the date a record was created. The Date Created field type will expose this field to your forms. You can sort or filter your records by this field.
	Date Modified	Tap Forms also keeps track of the date and time a record was modified. You can sort or filter your records by this field. Please note, however, that if you change the sorting of your form after your form is created, Tap Forms will update the Date Modified value for each record to be the current date and time.
	Audio Recording	Tap Forms for Mac can play back audio recordings made on Tap Forms for iOS, but it cannot record audio notes on its own. When you sync, Tap Forms for Mac will gain access to the audio notes you created on iOS.
	Calculation	The Calculation field type lets you construct formulas to compute mathematical expressions. Formulas can contain references to other fields within your form. You can use all the basic mathematical operators such as ( ) * / – + as well as the keyword $now. The $now keyword will insert the current time into the formula before being evaluated.
	Checkmark	The Checkmark field lets you have a basic on/off toggle for setting whether something is true or false, on or off, yes or no, etc. Checkmark fields can be used in formulas also. For example, if you wanted the total to be computed only when a checkmark field is on, just drag the checkmark field into your formula and use multiplication to cause the result to be either 0 if it's off or whatever the regular result would be if the checkmark field value is on.
	Contact	The Contact field lets you reference a contact from your Mac's Contacts database. Tap Forms will copy the first and

		last names into its database as well as the contact's unique identifier. This information will be used to look up the contact's record from the Contacts database whenever you click on the contact button to the right of the field. **Note:** Due to the way Apple syncs contacts across devices, the unique identifier may change between devices. This can cause Tap Forms to display the wrong contact when you click on the contact button to the right of the field.
	Drawing	The Drawing field type on Mac is a read-only field. You can create drawings on iOS and view them on the Mac version. You cannot draw into a field on the Mac version.
	Email	The Email field will give you a button to the right of the field which will launch Mail whenever clicked and pass the email address entered into the field into the To: field of a new email message. Separate email addresses with commas to address more than one email address at a time.
	File Attachment	The File Attachment field will let you store one or more files associated with your record. You can tell Tap Forms if your File Attachment field supports just one file or multiple files by checking the **Multi-File Enabled** checkbox on the Field Properties screen. When Multi-File Enabled is checked, you will see a list of files within your File Attachment field. You can double-click on a file to launch the app which is responsible for that field type. You can also choose to attach your file as a copy of the file or as an alias of the file. When you attach a copy, Tap Forms will copy the file selected into the database. As the database is synced, the attachments that were copied into the database will also be synced. You will then be able to access the same files on your iOS devices and other

		Macs that are syncing the same database document. Aliases cannot be viewed on other devices nor synced.
	Link to Form	This field lets you connect different forms together in a parent to child relationship. Use **One to Many** if you don't want or need to share the records from the linked form with other forms or records. Use **Many to Many** if you'd like to be able to select from a list of previously entered records from another form and link them to the parent record. Use **Join** if you'd like Tap Forms to manage the relationship between your forms for you based on fields that match between the parent and child forms. Enable the **Show Inverse Relationship** option if you want to display the parent record on the child form you're linking to.
	Link from Form	The Link from Form field will display the parent record that links to the child record. This field should never be created on its own. It is automatically created for you from the Link to Form field when you enable the **Show Inverse Relationship** option.
	Location	The Location field type will display a map of your current location. You can search for different locations and drag the pin around to change your location. You can also edit the location name, but Tap Forms will first do an address lookup to fill in the address that matches your current location.
	Markdown	The Markdown field type allows you to enter in large amounts of text using Markdown formatting codes. See https://www.markdownguide.org/basic-syntax/ to learn about basic markdown formatting codes.
	Note	The Note field type allows you to enter in large amounts of text. Text can also be styled using different fonts, sizes, and

		colors. The Mac version has the ability to add bulleted lists, but these are not displayed on the iOS version of Tap Forms.
	Phone	The Phone field will convert a set of digits into a formatted phone number taking into consideration different region formats for phone numbers. The iPhone version will also dial or text the number when the phone button is tapped.
	Photo	The Photo field will let you select a photo from your disk or use the built-in camera to take a photo. You can also drag and drop an image into the Photo field. Once an image has been attached to your Photo field, you can click on the QuickLook button to view a larger version of the photo or click the trash button to delete it.
	Rating	The Rating field will display up to 10 stars that you can click on in order to rate your records. For example, if you were maintaining a movie library, you could add the film's popularity rating to your record. Ratings can be used in calculations and also at the form level. Therefore, you could display the average rating for all the movies in your library.
	Script	The Script field is much like the Calculation field, but you can write scripts using the JavaScript language. You can use this to perform much more complicated actions on your data than the Calculation field. It can also be more efficient and simpler to understand when you have complex formulas than with the Calculation field.
	Section Heading	The Section Heading field will help you to organize the fields within your form into sections. This makes working with long forms much easier.
	Signature	The Signature field type on Mac is a read-only field. You can create signatures on iOS and view them on the Mac version.

	Table	The Table field type is a simple way of creating a field that can hold multiple values, displayed in a grid or tabular format. Table fields are similar in some ways to a form in that it's comprised of one or more fields itself. Bento had a similar field type called a Simple List. You can also select a form to connect to a Table field which can be used to copy fields from into your Table field. This also allows you to select records from the connected form to copy into your Table field's sub-records. Tap Forms will use the field titles in the Table field to match the field titles in the connected form in order to determine which values to copy from the selected records.
	Website	The Website field lets you store an address to a website or even another application on your own computer. When you click on the website button to the right of the field, Tap Forms will launch your web browser and take you to the address specified.

Last modified: Jul 22, 2020

5.3. Field Properties

Tap Forms has a variety of properties available for each different field type. Some field types share common properties while other fields have their own unique set of properties. Field properties are the settings that allow you to customize how Tap Forms looks and behaves for each field type.

Here are a list of the properties and what they do for each field type

Property Name	Field Types	Description
Type	All	This is where you specify what field type you would like to use for the selected field. If you change a field type, you will be asked to confirm the switch. Not all field types are compatible, so switching from one field type to another may cause the data in that field to be erased.
Title	All	The Title is used to identify each field in

		your form. They don't have to be unique names, but it's better if they are, especially when exporting and importing records.
Description	All	You can enter a description for your field to better help you remember what the field is all about. The description will also appear as a tooltip on the field title on the Default Layout and on the field itself on your custom layouts.
Title Color	All	Allows you to set a colour for the label. This affects only the Default Layout.
Value Color	All	Allows you to set a colour for the field value. This affects only the Default Layout and the multi-column list view.
Hide Field	All	Hides a field from being displayed on the Default Layout. This can be useful if you have a Script field that performs an operation, such as setting values on other fields, but does not need to display any results itself.
Required Field	Text, Number, Date, Note	Takes effect only when you have the `Show Edit/Save Button` setting enabled in the General Preferences panel. When you click the `Save` button at the bottom of the record details view, Tap Forms will highlight in red all the fields that are missing a value on the Default Layout.
Use Auto-Complete	Text	A popup menu will be automatically generated that contains a list of previously entered values from all the records in the form for the specific field.
Mask Field Value	Text, Number, Web	This simply hides the content of the field until you click a checkbox button next to the field to reveal its contents. Masked fields will show as • • • • characters on the records list view.
Show Title on List View	Most, but not all	On the Single Column List View, the field title will be displayed next to the value.
Display as Barcode	Text, Number, Script, Web	Tells Tap Forms to display the value of the

		field as a barcode on a custom layout. Has no effect on the Default Layout.
Capitalization	Text	Can be set to None, Words, or All Characters. Affects whether or not Tap Forms automatically capitalizes the characters as you type without having to hold down the shift key or caps-lock key.
Default Value	Most, but not all	Allows you to set a default value to be inserted at the time you create a new record. Does not affect existing records. For Date and Time type fields, the Default Value is the `current date and time`. For Checkmark fields, the Default Value is either `On` or `Off`.
Pick List	Text, Number	Associates the field with the selected Pick List.
Checkbox/Radio Columns	Text	When the associated Pick List's `Display As` property is set to `Radio Buttons` or `Checkbox Buttons`, this property tells Tap Forms how many columns to use to display the Pick List values. This affects both the Default Layout and custom layouts.
Label Position	Text	This tells the Radio Buttons or Checkbox Buttons Pick List to display the value label either to the left, right, above, or below the radio or checkbox button.
Auto-Increment	Number	When a new record is created, Tap Forms uses the `Next Default Value` property to store it in the record for that field. It then adds the `Increment Amount` value and stores that in the `Next Default Value` property ready to be used for the next record.
Increment Amount	Number	This contains the value that will be used to increment the `Next Default Value` after a new record is created.
Next Default Value	Number	This stores the next value that will be used when creating new records. It's essentially the same as the Default Value field, but is

		set when Auto-Increment is enabled.
Number Format	Number, Currency, Script, Calculation	This controls how Tap Forms displays numeric values. The choices are None, Currency, Decimal, Percent, Scientific, Spell Out, and 5 different Time styles. The Time styles are useful for representing duration values, such as 3:30 to represent 3 hours and 30 minutes. For Time styles, Tap Forms converts the values stored as seconds in the field into the specified format. Tap Forms also converts the other way around. For example, 0:10 (ten minutes) will be converted to 600 seconds when stored in the database.
Decimal Places	Number, Calculation, Script	Sets how many digits to display after the decimal point of the numeric value. Tap Forms will round the value up the fewer decimal places specified.
Highlight Negative Numbers	Number, Calculation, Script	Negative numbers will be displayed in red.
Summary Calculation	Number, Calculation, Script	Can be set to one of Total, Average, Minimum, Maximum, or Count. Displays the result of the selected function at the bottom of the records list view and at the bottom of each group when the `Show Group Summaries` option is enabled on the records list view.
Date Format	Date, Time, Date & Time, Calculation, Script	There are a number of different date formats to choose from so you can customize how dates are displayed in Tap Forms. If you choose the Short, Medium, Long, or Full options, Tap Forms uses the format specified in `System Preferences > Language & Region > Advanced > Date`. You can customize the format there.
Custom Date Format	Date, Time, Date & Time, Calculation, Script	Use your own date format pattern to fully customize how dates appear. See Date_Format_Patterns for more information on date patterns you can use.

Link to Form	Link to Form	This is the form you would like to link your Link to Form field to.
Show Inverse Relationship	Link to Form	Enabling this automatically creates a `Link From Form` field within the Link to Form which links back to this field. It allows you to see the relationship in both directions. For a `One to Many` Link Type, the inverse relationship displays a single parent record. For a `Many to Many` or a `Join` Link Type, the inverse relationship displays a table of parent records.
Link Type	Link to Form	There are 3 different relationship options for the Link Type property. `One to Many`, `Many to Many`, and `Join`. Please see the chapter on Relationships for more information on how these work.
Show File Name	Photo	Enabling this will cause the Photo filename to appear beneath the photo on the Default Layout.
Thumbnail Size	Photo	You can choose between small, medium, and large photo thumbnail sizes to display on the Single Column List View. This will take effect when the Photo field is the very first field in your form. So if you don't see the thumbnail, drag your Photo field up to the first position in your form.
Photo Size	Photo	This controls how large a photo Tap Forms will store in the database when you attach a photo. You can choose between Original, Mini (512×512), Small (1024×1024), Medium (1536×1536), or Large (2048×248). Tap Forms will scale the images proportionally to fit within the specified size.
Resize All Photos	Photo	If you would like to scale the photos within your form for the specified field, click this button. Tap Forms will use the Photo Size option to scale the photos. Once you've done this, go to the Database Maintenance screen and click Compact Database to

		shrink the size of your database. Depending on how many records you have in your form, this operation may take quite a while to complete.
Multi-File Enabled	File Attachment	This tells Tap Forms to display a table of files that you can attach to the field. If this is turned off, you will only be able to attach a single file to the field.
Maximum Value	Rating	Set how many stars you want to display. You can display up to 10 stars.

Last modified: Jan 24, 2020

5.4. Calculations

Tap Forms has a special field type called Calculation.

For basic math, use the following operators:

Operator	Symbol
Add	+
Subtract	-
Multiply	*
Divide	/
Logical AND	&
Logical OR	~
Modulo	%

The following mathematical expressions in the Calculation field formula editor are supported:

In Tap Forms 5.2, for international regions which use a comma for the decimal point, you will need to now use a comma in all the numbers you use in your formulas. You will also need to use a semi-colon character as the delimiter between parameters in function calls. Tap Forms will do this for you when you choose a function, but you will have to go back and edit old formulas to use the semi-colon delimiter between function parameters.

> ! If you don't provide a value for every field in your formula, you will receive an empty result for the Calculation field. To resolve this issue, you can either set a Default Value for all the fields used in the formula, or you can use the `IFEMPTY()` function to return a default value if none is provided. For example `IFEMPTY(Price; 0; Price)` which will return 0 if the Price field is empty and the actual Price value if it's not empty.

Date and Time

Function	Description	Notes	Return Type
`DATE(X; "yyyy-MMM-dd")`	Displays the date in a readable format.	`DATE(X; "yyyy-MMM-dd hh:mm:ss a")` displays the date with the date and time. The second parameter is for customizing the format. Please see the Unicode Technical Standard #35 for pattern syntax and examples.	Text
`DATEADD(Date;Y;M;W;D;H;M;S)`	Adds the date components to the specified date.	For example: `DATEADD(Date;0;3;0;2;0;0;0)` will add 3 months and 2 days to the specified date. Y = Years, M = Months, W = Weeks, D = Days, H = Hours, M = Minutes, S = Seconds.	Date
`DATEVALUE(A; "yyyy-MM-dd")`	Returns a date value for the specified date text.	For example: `DATEVALUE("2017-12-31"; "yyyy-MM-dd")` returns the date Dec 31, 2017.	Date
`DAYS(X;Y)`	Number of days between dates	`DAYS(X;Y)` returns the number of days between the start and end dates. e.g. `DAYS(Start Date; End Date)`.	Number
`EOMONTH(Date;X)`	Returns the date for the last day of	Returns the last day of the month X number of months before or after the specified	Date

	the month	date.	
`HOURS(X;Y)`	Number of hours between dates	`HOURS(X;Y)` returns the number of hours between the start and end dates. e.g. `HOURS(Start Date; End Date).`	Number
`MINUTES(X;Y)`	Number of minutes between dates	`MINUTES(X;Y)` returns the number of minutes between the start and end dates. e.g. `MINUTES(Start Date; End Date).`	Number
`MMDD(X;Y)`	Number of months and days between dates	`MMDD(X;Y)` returns the number of months and days between the start and end dates as a text value. e.g. 1 month, 3 days.	Text
`MONTHS(X;Y)`	Number of months between dates	`MONTHS(X;Y)` returns the number of months between the start and end dates. e.g. `MONTHS(Start Date; End Date).`	Number
`NEWDATE(Y;M;W;WD;WO;D;H;M;S)`	Creates a date given the specified components.	For example: `NEWDATE(2017;11;0;0;0;22;0;0;0)` will create a date for 2017-11-22. Y = Year, M = Month, W = Week of Year, WD = Weekday, WO = Week Ordinal, D = Days, H = Hours, M = Minutes, S = Seconds.	Date
`NOW()`	Inserts the current date & time.	Inserts the current date & time in Unix Epoch date format, which is the number of seconds elapsed since January 1, 1970 00.00.00 GMT.	Date
`TODAY()`	Inserts the current date.	Inserts the current date in Unix Epoch date format,	Date

		which is the number of seconds elapsed since January 1, 1970 00.00.00 GMT.	
`WEEKDAYS(X;Y)`	Number of weekdays between dates	`WEEKDAYS(X;Y)` returns the number of weekdays between the start and end dates. e.g. `WEEKDAYS(Start Date; End Date).`	Number
`WEEKNUM(X)`	The week number of the year.	Returns the week number of the year from 1 to 52.	Number
`YEARS(X;Y)`	Number of years between dates	`YEARS(X;Y)` returns the number of years between the start and end dates. e.g. `YEARS(Start Date; End Date).`	Number
`YYMM(X;Y)`	Number of years and months between dates	`YYMM(X;Y)` returns the number of years and months between the start and end dates as a text value. e.g. 1 year, 2 months	Text
`YYMMDD(X;Y)`	Number of years, months and days between dates	`YYMMDD(X;Y)` returns the number of years, months and days between the start and end dates as a text value. e.g. 2 years, 1 month, 3 days.	Text

Conditionals

Function	Description	Notes	Return Type
`IF(X;Y;Z)`	Provides branching.	`IF(X;Y;Z)` provides branching capability. If X is not 0, then it returns Y, else it returns Z.	Text/Number/Date
`IFEMPTY(X;Y;Z)`	Checks if X is empty.	`IFEMPTY(X;Y;Z)` checks for empty value of X. If X is empty, then it returns Y, else it returns Z.	Text/Number/Date
`IFEQUA`	If A and B are	`IFEQUAL(A;B;C;D)` will return C	Text/Number/Date

`L(A;B;C;D)`	equal, return C, otherwise return D.	if A and B are equal. If A and B are not equal, returns D. A and B must be text.	
`IFNOTEMPTY(X;Y;Z)`	Checks if X is not empty.	`IFNOTEMPTY(X;Y;Z)` checks to see if X is not empty. If X is not empty, then it returns Y, else it returns Z.	Text/Number/Date

Text

Function	Description	Notes	Return Type
`CONCAT(X;Y;...)`	Joins strings together.	`CONCAT("abc";"def";...)` function returns the combined string “abcdef”. There is no limit on the number of parameters.	Text
`FORMAT(X; "#.00")`	Customize the display of numeric values.	`FORMAT(X; "#.00")` displays the value of X using the provided number format. Please see the Unicode Technical Standard #35 for pattern syntax and examples.	Text
`LEFT(A; X)`	Returns the left most X characters from the text A.	For example, `LEFT("Tap Forms"; 3)` returns the value “Tap”.	Text
`LENGTH(A)`	Returns the length of A.	Returns the number of characters in the text value A.	Text
`POS(A; B)`	Returns the position of B within the text A.	For example, `POS("Tap Forms"; "Forms")` returns the numeric value 5.	Number
`RIGHT(A; X)`	Returns the right most X characters from the text A.	For example, `RIGHT("Tap Forms"; 5)` returns the value “Forms”.	Text
`STR2NUM(A)`	Return the numeric value of the specified text value	`STR2NUM("25")` returns the number 25. `STR2NUM("11.5")` return the number 11.5.	Number

	A.		
`SUBSTR(A; X; Y)`	Returns characters from A for the given range.	Returns a string containing the characters from A for the specified range. X is the starting position. Y is the length of characters to return.	Text
`UUID()`	Returns a unique identifier.	Generates a Universally Unique Identifer (UUID). For example A432C2F2-A662-545B-16AD-0A357A3E6E5F.	Text

Math and Trigonometry

Function	Description	Notes	Return Type
`ABS(X)`	Absolute value of X.	`ABS(X)` returns the absolute value. e.g. `ABS(4)` = 4 and `ABS(-4)` = 4.	Number
`ATAN(X)`	Arctangent of X.	`ATAN(X)` returns the arctangent value of X.	Number
`AVG(X;Y;...)`	Returns the average of the parameters.	`AVG(X;Y)` returns the average of X and Y. e.g. `AVG(5; 3)` is 3.5.	Number
`CEIL(X)`	Rounds the value of X up.	`CEIL(X)` rounds up the value of X to the nearest integer. e.g. `CEIL(-3.2)` = -3, `CEIL(3.2)` = 4.	Number
`COS(X)`	Cosine of X	`COS(X)` returns the cosine of the angle X in radians.	Number
`COSH(X)`	Cosinus Hyperbolic function.	`COSH(X)` returns the cosinus hyperbolic value of X.	Number
`COTAN(X)`	Cotangent function.	`COTAN(X)` returns the cotangent of X.	Number
`EXP(X)`	Exponent function.	`EXP(X)` computes e**x, the base-e exponential of x.	Number
`FLOOR(X)`	Rounds the value of X down.	`FLOOR(X)` rounds down the value of X to the nearest integer. e.g. `FLOOR(-3.2)` = -4, `FLOOR(3.2)` = 3.	Number

`INTPOW(X;Y)`	Raises X to the power of Y returning an integer.	`INTPOW(X;Y)` raises X to the power of Y returning an integer. e.g. `INTPOW(2; 3)` = 8 and `INTPOW(2; 3.4)` = 8 also.	Number
`LN(X)`	Natural log function.	`LN(X)` natural log function.	Number
`LOG(X)`	10 based log function.	`LOG(X)` 10 based log function.	Number
`LOGN(X;Y)`	Log base X of Y function.	`LOGN(X;Y)` returns the log base X of Y. e.g. `LOGN(10; 100)` = 2.	Number
`MAX(X;Y;...)`	Returns the maximum of the parameters.	`MAX(X;Y)` returns the maximum of X and Y. e.g. `MAX(2; 3)` is 3.	Number
`MIN(X;Y;...)`	Returns the minimum of the parameters.	`MIN(X;Y)` returns the minimum of X and Y. e.g. `MIN(2; 3)` is 2.	Number
`POW(X;Y)`	Raises X to the power of Y.	`POW(X;Y)` raises X to the power of Y. Supports decimal values.	Number
`RND()`	Generates a random number between 0 and 1.	To generate a random number between 0 and 100, just multiply the result by 100.	Number
`SIGN(X)`	Returns -1 if X<0; +1 if X>0, and 0 if X=0.	`SIGN(X)` returns -1 if X<0; +1 if X>0, and 0 if X=0.	Number
`SIN(X)`	Sin of X	`SIN(X)` returns the sine of the angle X in radians.	Number
`SINH(X)`	Sinus Hyperbolic function.	`SINH(X)` returns the sinus hyperbolic value of X.	Number
`SQR(X)`	Square of X	`SQR(X)` returns the square of the value of X.	Number

`SQRT(X)`	Square root of X.	`SQRT(X)` returns the square root of X.	Number
`SUM(X;Y;...)`	Returns the sum of the parameters.	`SUM(2;3;5;...)` Returns the sum of it's arguments. There is no limit on the number of parameters.	Number
`TAN(X)`	Tangent function.	`TAN(X)` tangent function.	Number
`TRUNC(X)`	Truncates the fractional part of X.	`TRUNC(X)` discards the fractional part of a number. e.g. `TRUNC(-3.2)` is -3, `TRUNC(3.2)` is 3.	Number

Text Concatenation

In addition to the above mathematical expressions, Tap Forms also supports text concatenation. With this feature, you can create Calculation fields which return a Text value instead of a Number value.

For example, you could create a Calculation field called **Full Name** (or whatever you want to call it) which has the following formula:

`First Name` + " " + `Last Name`

As long as you set the **Result Type** property on the Formula Editor to **Text**, then Tap Forms will evaluate the above formula and return the string with the First Name and Last Name fields joined together with a space character in between. It's especially useful for creating labels. You can keep your First Name and Last Name fields as separate fields, but for printing labels, you would want them to be joined together into a Full Name field to make your labels look nicer.

Eliminating blank lines from a mailing address label if certain values are empty

```
First Name + " " + Last Name + "\r" +
IFNOTEMPTY(Company; Company + "\r"; "" ) +
Address 1 + "\r" +
IFNOTEMPTY(Address 2; Address 2 + "\r"; "" ) +
City + ", " + Province + "  " + Postal Code
```

In the above example, the **IFNOTEMPTY (** `Company`; `Company` + "\r"; "" **)** part checks to see if the `Company` field is not empty. If it has a value, it returns the value in the `Company` field and adds a linefeed character to it. If it has no value, it simply returns nothing (an empty string).

The `"\r"` part inserts a new line into the result.

Quoting Special Characters

There are some special characters in Tap Forms which require you to prefix them with a \ character. The following is a list of characters that require escaping in order to be used within quotes:

", , and ;

For example,

```
CONCAT("Last Name\, First Name")
```

The comma between Last Name and First Name must be escaped with the \ character.

Last modified: Oct 13, 2019

6. Records

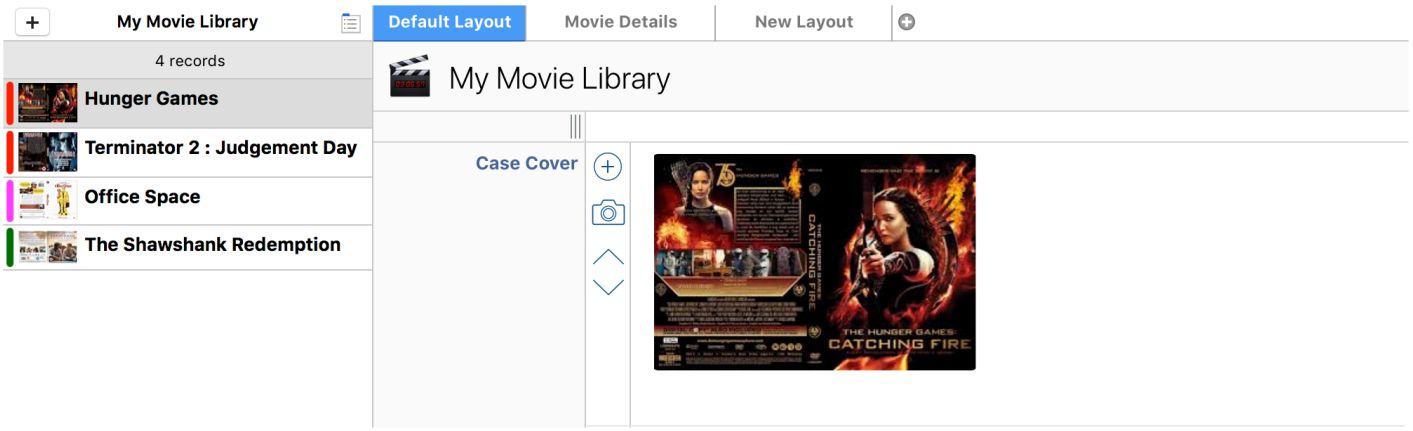
Records, which sit between fields and forms, represent the items in your collection. The topics in this category cover how records can be used and the sorting functionality for records.

Records

- How to Use Records
- Sorting Records

Last modified: Sep 14, 2018

6.1. How to Use Records



Records, comprised of **fields**, are the pieces of data that make up an overall form. A record is most often an item in an overall collection – like a book or movie – but can also function as dates, tasks, and more. Basically, you'll use records to input information that will contribute to a bigger list.

To start working with records, you'll first need a form (you can read more about forms here). Once you've decided on an overall topic, you can begin adding records **via the + icon**, which is present in all views. Records' characteristics are set by fields, which are unique inputs meant for adding context to your data entries – without adding fields, you'll only have the title of the record to edit.

With the big-picture form idea and the right fields set, you're on your way to creating records. As you add records, they'll appear in the **view** you've selected, acting as individual reference points as you view your information. When viewing a record, your data will be added to the default **layout**, which displays your information vertically.

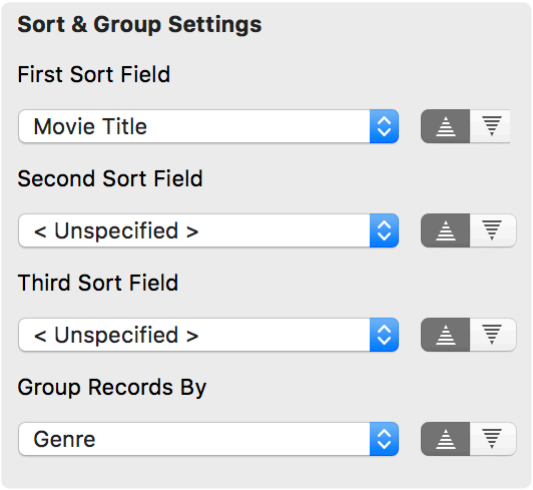
As mentioned previously, records function best when used as individual portions of a greater subject. For example, you might use a record to represent a movie in your overall collection or act as an event for an important date. Although records can function as multiple pieces of data, using records for one representation can simplify your database.

Last modified: Feb 20, 2019

6.2. Sorting Records

After inputting records into your form, the next step is choosing an organizational strategy for when they are displayed across their various **views**. This is done with **sorting**, and the proper utilization of it can drastically improve how useful records can be.

In the **Forms** inspector panel on the right side of the screen, under the Form tab, sort settings live in the "**Sort & Group Settings**" header in dropdown menus. Sorting can be done in three intervals that take priority over the next – for example, you can sort by name and then date, with name having a preference. Sorting with records is done through **fields**, meaning that you'll choose the fields that you want to use to organize your records.

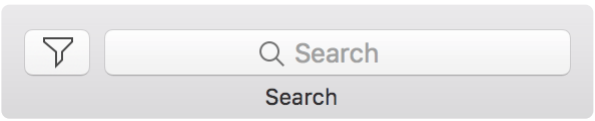


When you choose your sorting method, Tap Forms will immediately sort your data by the criteria you've listed. Based on what you've entered into fields, the app can read the various options and choose the best way to categorize your records. In many instances, you'll sort by the first letter of the title, a date, or an important number. However, you can also sort by any field you've added to a record.

Sort can be done in **ascending or descending** order, and Tap Forms is smart enough to understand the unique sorting rules for a particular field. As an example, the "**Text**" field can be sorted alphabetically, but a "**Date**" field understands the order of months and will sort accordingly.

Last modified: Mar 26, 2020

6.3. Searching



To quickly access **record** information, Tap Forms includes **search functionality** that can be used via the

toolbar. Search offers two basic features: a **general search** and **saved searches**.

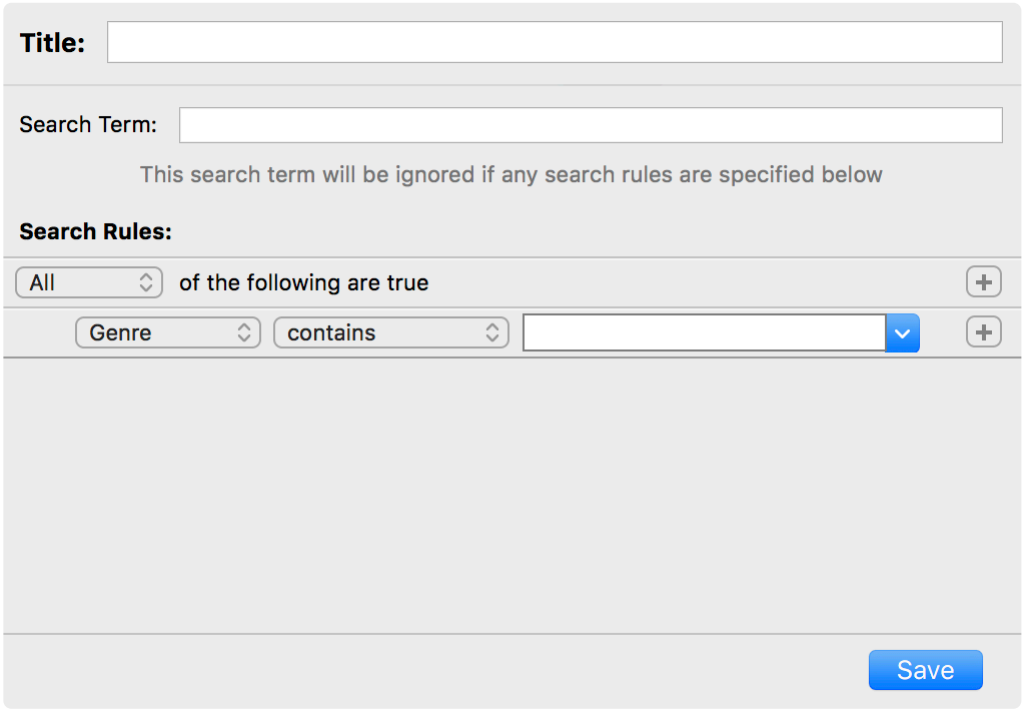
General Search

With a **general** search, you'll get exactly what you'd expect; type your text into the search field and Tap Forms will search the database for records related to that term or phrase. You'll first see search results for the currently selected form – however, if you'd like to search all forms in the document, click the "**All Forms**" button, which can be found just below the toolbar when the general search is being used. If your term or phrase is found within multiple forms, Tap Forms will present them within the view with their respective form titles. Below the toolbar is also a "**Save**" button, which is used to quickly store a search below its form. This feature then allows you to click on the saved search instead of typing your search each time you'd like to find the data.

> To perform an exact match search, put your search term in straight double-quotes. E.g. `"ABC-123"` will find all records that have the value `ABC-123` in them. If you leave out the double-quotes, punctuation will be ignored. In fact, with the `-` in the search term, Tap Forms will include all records with `ABC`, but exclude the ones that also contain `123`. The `-` acts as a negate function.

Saved Searches

Saved Searches are a more advanced form of searching, offering you unique filtering options to filter your records. **To get started, click the filter icon just to the left of the search bar**. Saved Searches allow you to filter based on specific fields whereas the General Search searches all fields at once.



In this window, you can create a customized search that operates on certain **rules** based on your fields; for example, if you'd like to quickly find high-quality action-adventure movies in your library, you can set rules to only show 3-star and above movies that you've labeled with the genre of "Action-Adventure". Saved searches appear under their forms, and once you've clicked the title, it'll automatically filter the relevant records.

To delete a saved search, select the search and right-click it before clicking "Delete Search". You can also select it and then select "Delete Search" from the Forms menu.

Search Rules

Search rules can be completely customized to your liking, and to further refine your searches, you can combine multiple rules together. **The process is as follows**:

1. Select the field you want to sort first. This is completed through the first dropdown menu.
2. Choose the sorting function. **Example**: *is*, *is not*, *contains*, *is*, *greater than or equal to*
3. Enter your criteria. This can be a word, phrase, or number.

> When you add multiple Search Rules, Tap Forms will combine each rule together to reduce the number of records returned from the search. Therefore, the more Search Rules you add, the fewer records will be returned. Click the **All** popup button and change it to **Any** if you'd like to expand the search results list by adding more search rules.

> You can also use an OR search between terms within the same value when using the `contains` operator – for example, `Move Tile contains Terminator OR Hunger`. You would put just `Terminator OR Hunger` into the search term field to accomplish this. The `OR` must be in uppercase.

Search Folders

Tap Forms 5.3 also now has the ability to organize your Saved Searches into folders and sub-folders.

To create a search folder:

1. Right-click on your form and select the **Create Search Folder…** option.
2. Type in a name for your search folder.
3. Click the Save button to save your folder.

4. Drag your Saved Searches into the search folder.

Last modified: Sep 18, 2019

7. Views

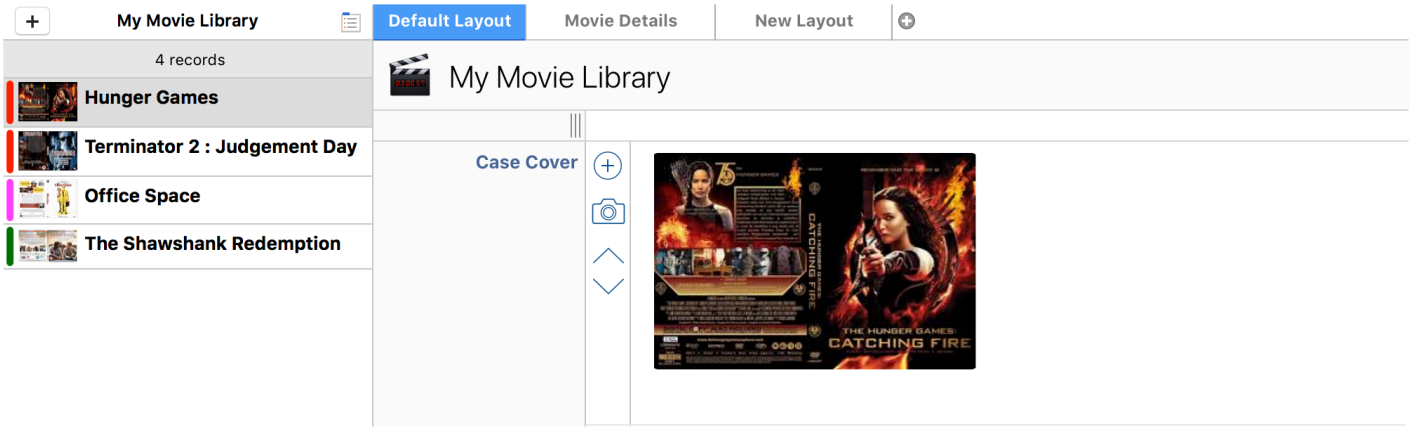
In the **Views** set of topics, this guide will discuss the various ways to see the records and forms you've created. Each topic features images and descriptions of the corresponding views, including their ideal use cases.

Views

- Single-Column List
- Multi-Column
- Calendar
- Map
- Photo Grid

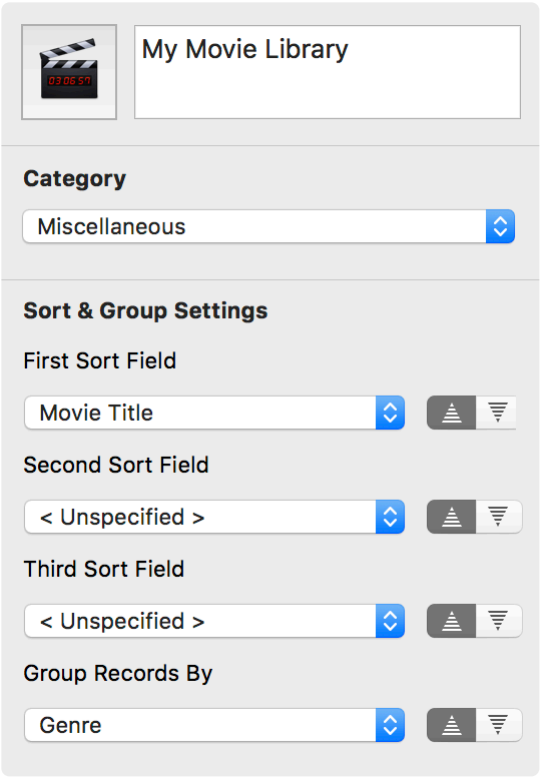
Last modified: Jun 07, 2018

7.1. Single-Column List



As the default option, the **Single-Column List** view organizes your **records** by displaying them one-by-one in a list. The Single-Column List is perfect for records that you want to sort by one specific criteria, like name, date, or size.

When building a **form** with records, the **fields** you use to characterize a record can be turned into the sorting method for the Single-Column List. For example, if you're creating a shopping list, you might want to sort the form by "Name".

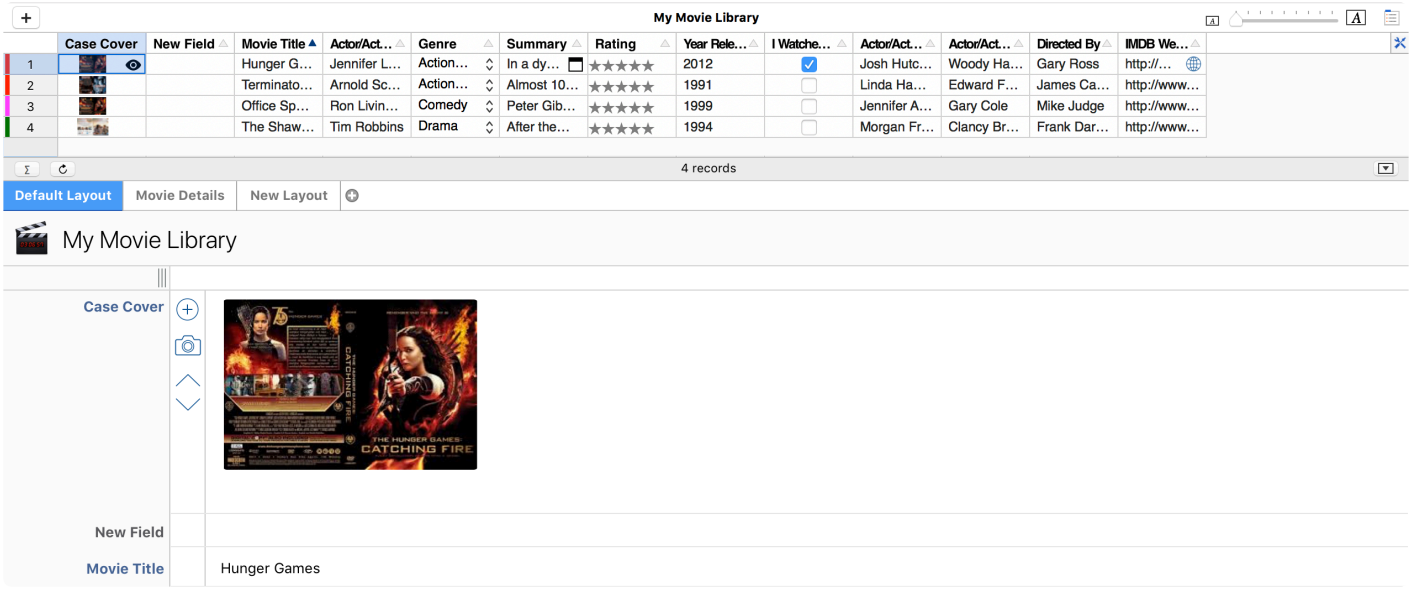


After you've begun to populate your form with records and fields, you can decide how you want to sort your lists. To do this, navigate to the "Sort and Group Settings" section of the Form tab. **Here, you'll choose up to three sort fields, as well as decide to organize in ascending or descending order.**

Adding records to your forms will populate the Single-Column List view, organizing themselves by the criteria you've outlined.

Last modified: Jun 07, 2018

7.2. Multi-Column



With the **Multi-Column view**, records assume a more table-like display, organizing your data across multiple columns. When you click on a particular record in Multi-Column, your fields' titles will populate the titles of each column, with their data entries filling the rows beneath.

Benefits

Fields in this view can be compared almost instantly, and the Multi-Column view is perhaps best used for getting an overall idea of your particular record. **Multi-Column works best for records that are text-heavy**, and can often be used with large sets of data.

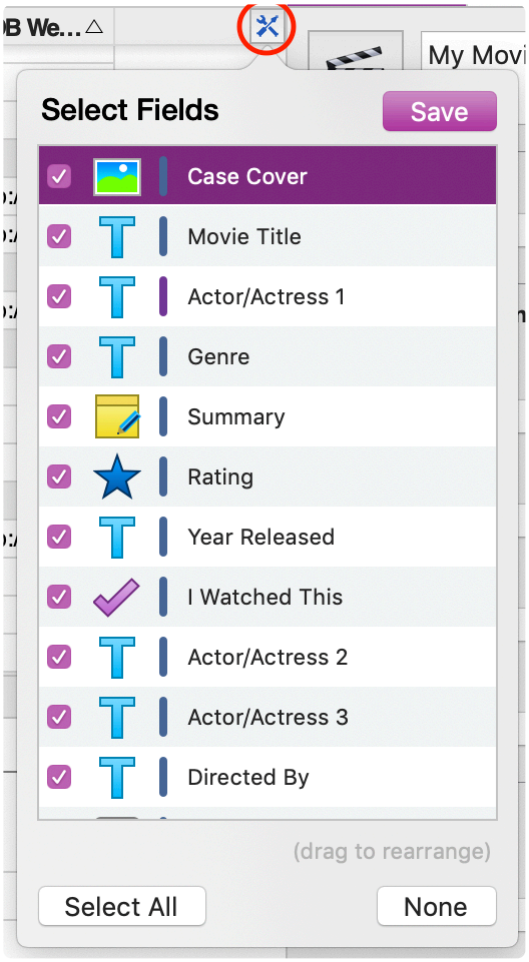
Another benefit of using the Multi-Column view is the ability to instantly jump to a particular field and edit its data – in most other views, you'd be required to click on a record and edit the information there. However, though there is still the default record layout along the bottom, the spreadsheet offers quick editing functionality.

Editing the Multi-Column View

Like spreadsheets, **the size of the cells in the Multi-Column view can be increased or decreased by clicking and dragging on their edges and dragging back and forth**. Along the top of the view is a slider to change the font size, as well as an option to remove sections in the spreadsheet.

To remove or rearrange fields from the table view:

1. Open the Multi-Column view
2. Click the icon resembling an "x" at the end of the header row
3. Tick the boxes to hide any fields from the table
4. Drag the fields above and below other fields to rearrange their positions
5. Click the **Save** button when done



To display sections with sub-totals:

1. Click the button that resembles a little menu at the top-right of the Multi-Column view
2. Select the **Show Section Headings** option
3. Select the **Show Group Summaries** option

To display calculation totals

You can tell Tap Forms to display totals, averages, minimums, maximums, or the count of the records in the form for each field.

1. Click the Sigma **[∑]** button in the bar that displays between the multi-column list view and the record details view to display the footer row.
2. Click the popup buttons in the footer to select the type of aggregate calculation you would like to see.

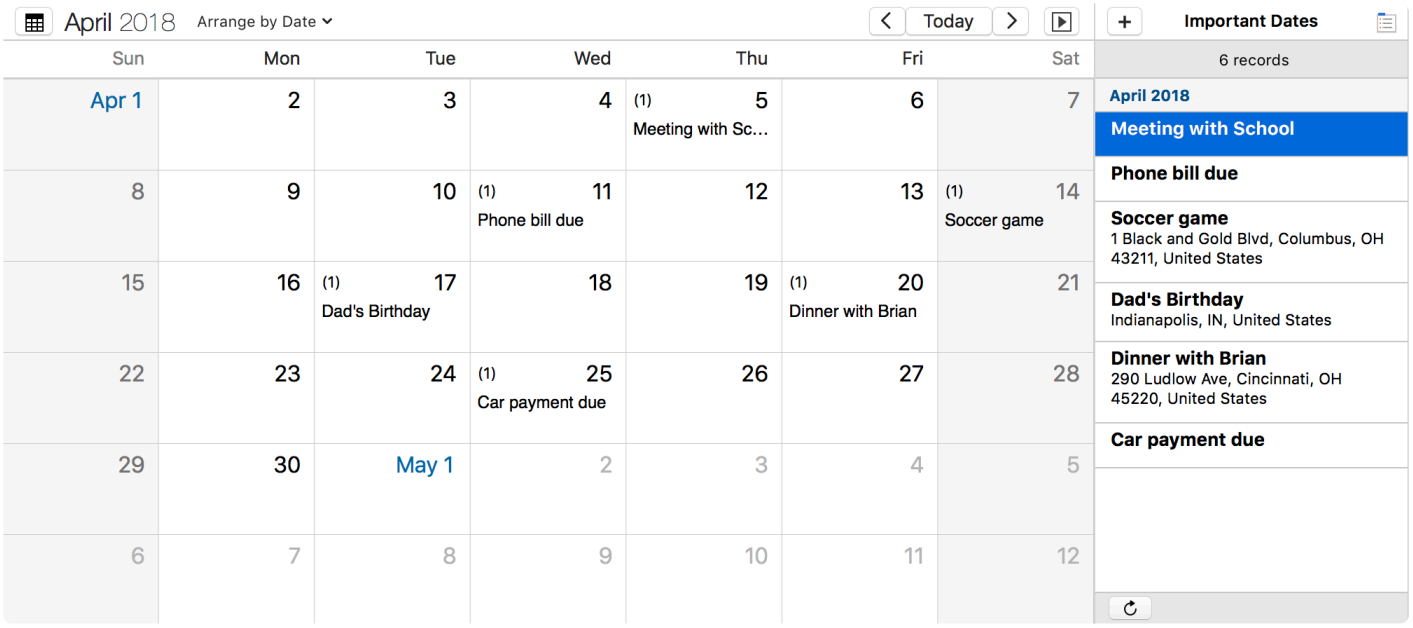
Section Headings must be enabled for Group Summaries to appear.

If you don't see the record details view at the bottom of the multi-column list view, you may

have hidden that view. Either click the **Show or hide detail view** button at the bottom right of the records list or drag the bottom bar where the records count is displayed upwards until the record details display.

Last modified: Sep 14, 2022

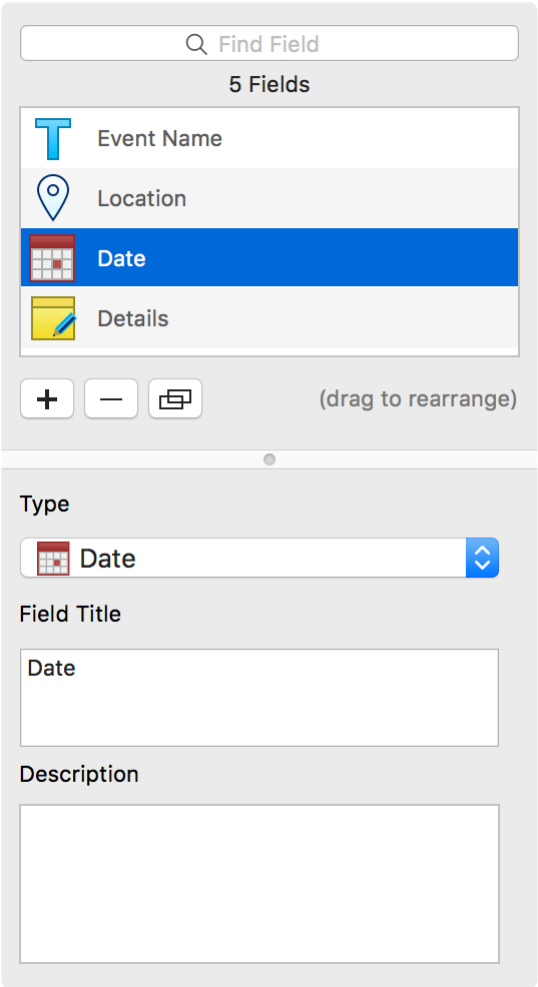
7.3. Calendar



The **Calendar view** found in Tap Forms is an alternate option to the default Single-Column List view. With Calendar, records created are organized and displayed **on a traditional monthly calendar**, allowing you to see them in a schedule format.

To utilize the Calendar view, you must create a “Date” or “Date & Time” field when setting up your records. To do this:

1. Open the Form sidebar
2. Click the “Fields” tab
3. Click the + icon to add a field
4. Select either “Date” or “Date & Time” from the dropdown menu



In Calendar, you'll see a large monthly calendar displayed at the top of the window with a list of events along the right side. Records with dates will appear on their relevant day, and the title of a record will also display on the calendar. At the top left of a day with an event, you'll see a number within parentheses indicating how many events are on that particular day. If you'd like to see more of the calendar, **you can expand it by dragging on its left, right, and bottom sides**.

You can navigate between months by clicking the arrow icons at the top of the calendar.

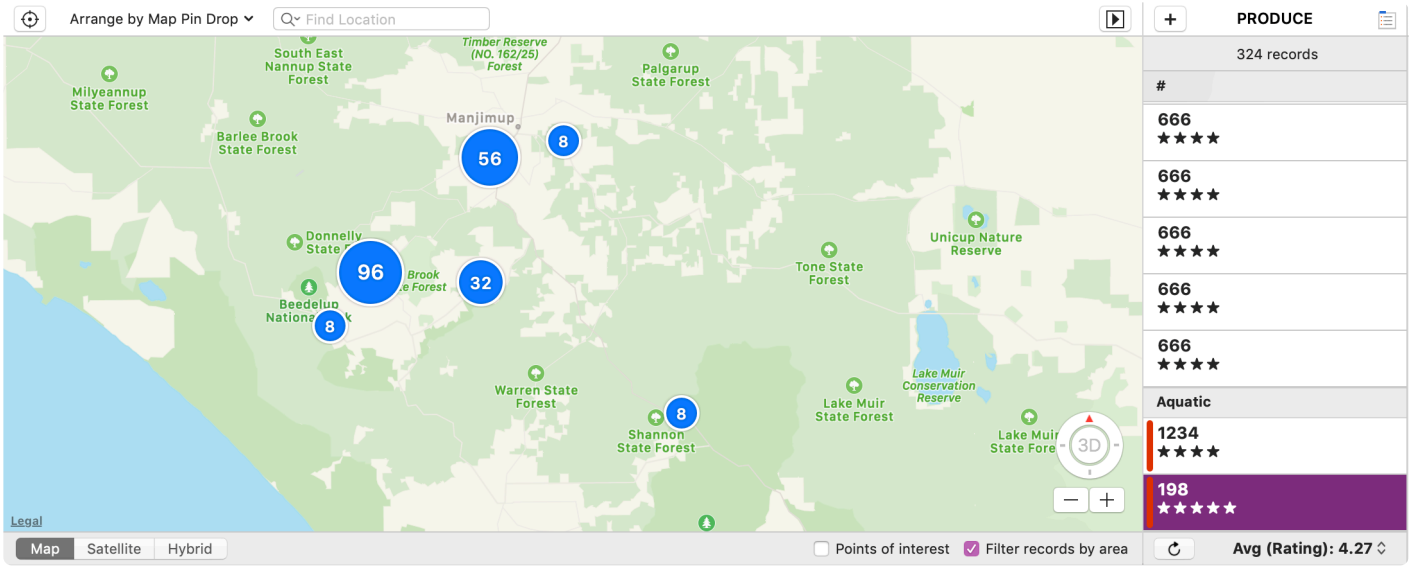
To the right of the calendar is a column list of records, sorted by the "**First Sort Field**" option in the Form sidebar. To view the records arranged by a specific date field, select a field from the "**Arrange by**" pull-down menu. Along the bottom of the window are layouts, which display more information about the records you've created. This is also where you'll add information about new records, including their title, date, and more.

You can also filter records by a specific date. To do this, follow these steps:

1. Click on the specific date.
2. To view the full list of records in the form, click the date again to deselect that day.
3. To view records for multiple dates, press the shift key while clicking on the desired date range.
4. To show or hide the records list, click on the arrow button in the upper right corner of the calendar.

Last modified: Jun 07, 2018

7.4. Map



Similar to the Calendar view, Tap Form's **Map view** uses a specific field type – **Location** – to offer a unique look at your form. Any record with the **Location** field will be placed on a map using a small circle indicator.

To get started with Map:

1. Click the Location field button on each record to display a map for that specific field.
2. Click the Locate Me button to pinpoint your current location or use the search function to search for a location.
3. Click Save to save that location.

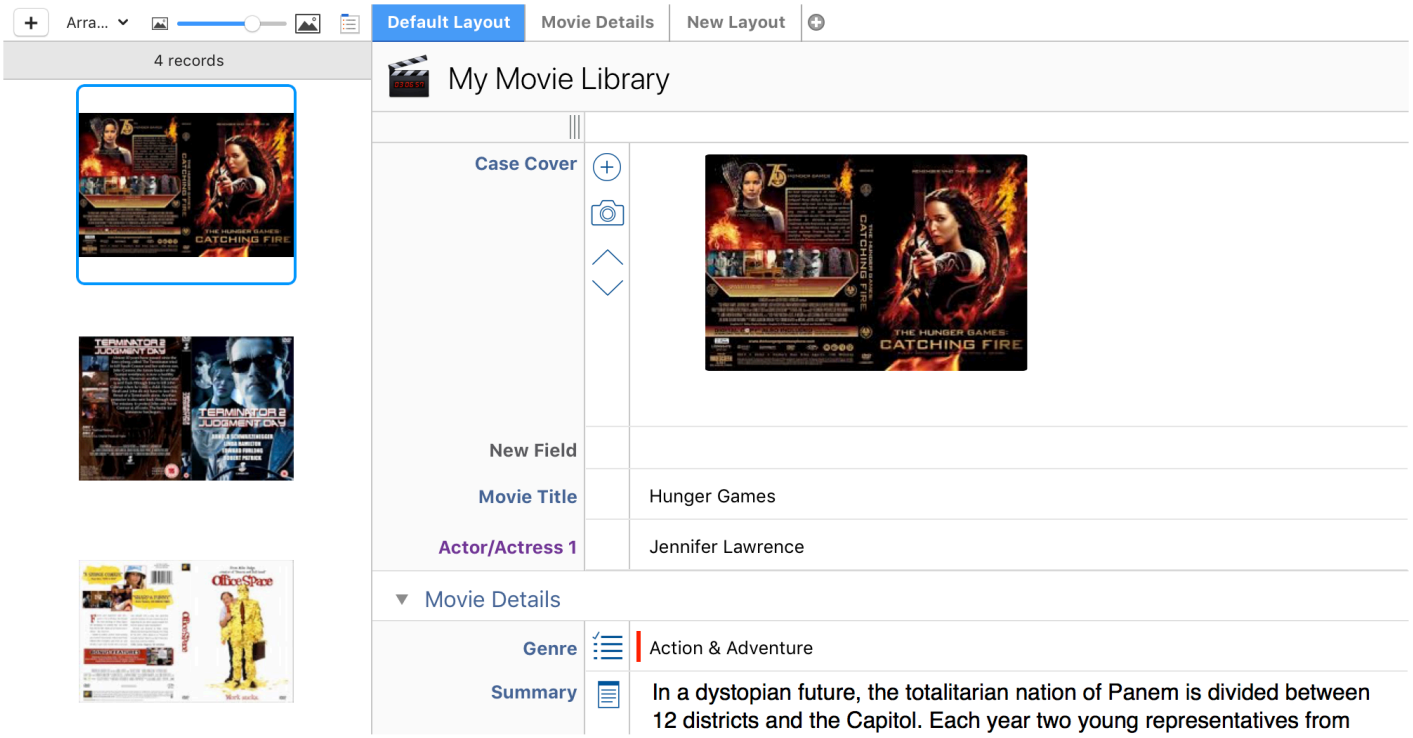
When your records are outfitted with locations, click the **Arrange by** menu above the map to display the records. Each record will be represented by a small red circle at its particular location, the circle remaining the same size as you move in and out to see the specifics of each location. When many records have locations within the same area, Tap Forms will cluster the points together and display the count of the number of records with locations within that specific area.

> To change the default pin color, visit Preferences. Tap Forms will also generate different pin colors if you've defined a Pick List that has colored values and assigned them to a field in the form. You also need to set the **Record Color Field** option on the Form properties to enable this feature.

Below the map is the **record layout**, including any custom layouts you've created for the particular form. To the right is a simple list view of your records, which can be sorted via the Form sidebar.

Last modified: Feb 20, 2019

7.5. Photo Grid

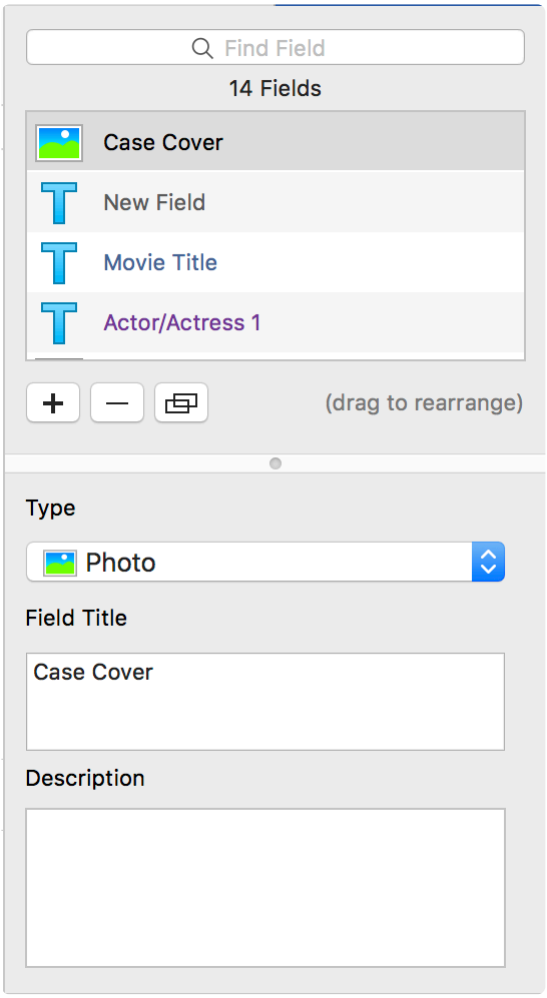


Forms containing photos can utilize the **Photo Grid view** to organize and display their respective records. With Photo Grid, images become the main reference point for your records, great for forms with book covers, movie posters, photos from a trip, and more.

For photos to appear in Photo Grid, you must have a “Photo” field set for the records in the form. To do this:

1. Open the Form sidebar
2. Click the “Fields” tab
3. Click the + icon to add a field
4. Select “Photo” from the dropdown menu

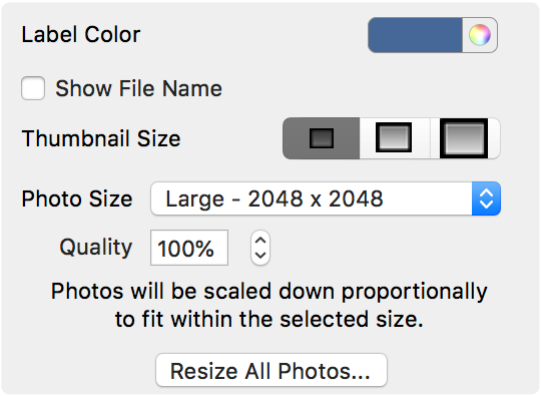
Once you’ve added the field, add a photo through drag and drop, the + icon, or take a photo via the camera icon. Photo Grid will show these images in a list format alongside the form’s layouts, creating thumbnails for each record.



Hiding sections gives a cleaner view of the grid.

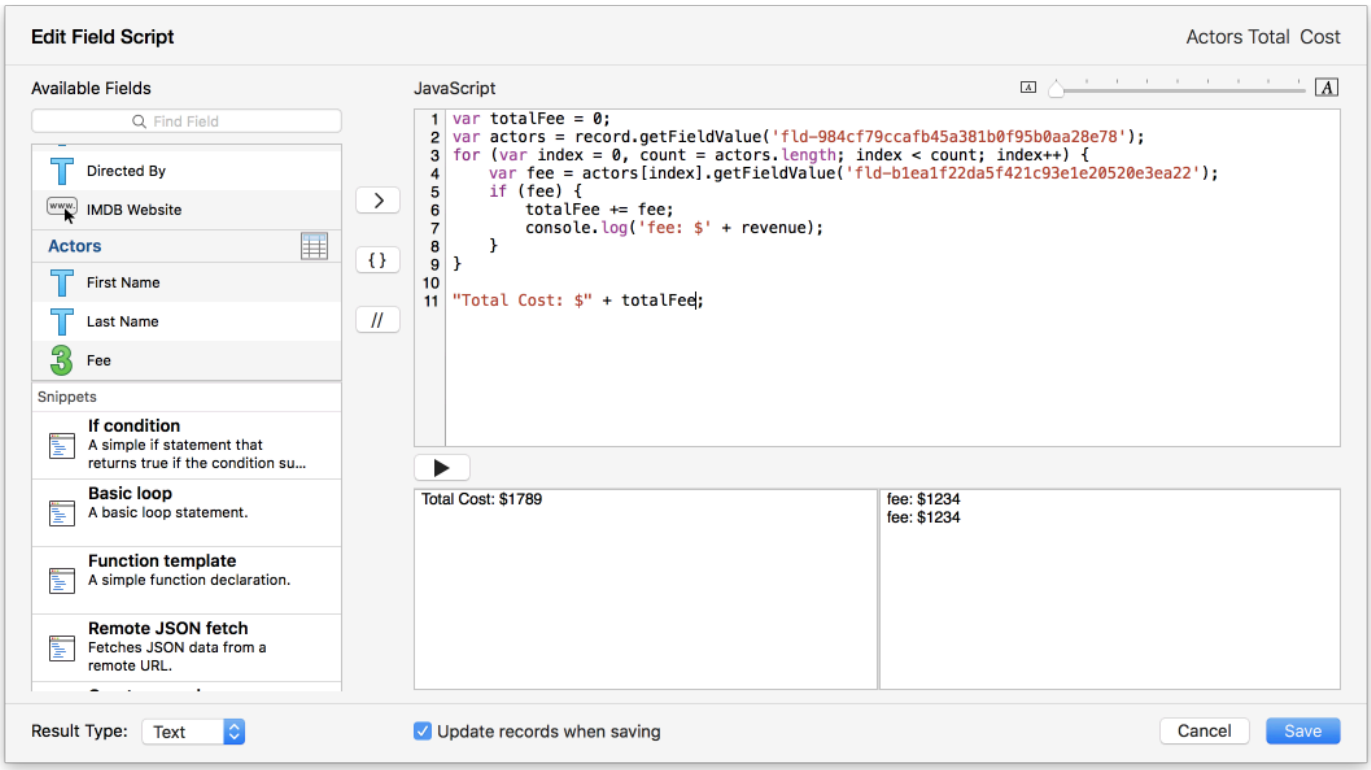
At the top of the Photo Grid is a slider, which functions to **increase or decrease** the size of your photos. Alongside the slider is the "**Arrange by**" dropdown menu – you'll need to have this set to your photo field in order to see the images. If you feel your images are too small, you can drag the edges of Photo Grid out to increase their size.

In the Form sidebar under Fields, select the Photos field within your form and scroll to the bottom to adjust the image size and quality. **This can be done on an individual or multi-photo basis**.



Last modified: Jun 07, 2018

8. Scripts



New to Tap Forms 5.3 are **Scripts** both at the Form level and Field level. Scripts allow you to write code that can perform complex actions on your data.

> Scripts must be written in the JavaScript programming language. Please see this link for more information about what JavaScript syntax is supported: https://tc39.github.io/ecma262/

> For a getting started tutorial on scripting, please see Tap Forms Scripting 101 This is useful even if you have no prior programming experience.

Field Level Scripts

The Script field is similar to the **Calculation Field** in that it gets executed when any field the script references changes. The mechanism that triggers the script to be executed is when you have a reference to a field in your script via the `record.getFieldValue(field_id)` function and that field changes in the record. Scripts can often be more efficient and easier to understand when dealing with complex formulas. So if your formula starts to get complex, you might consider using a Script field instead.

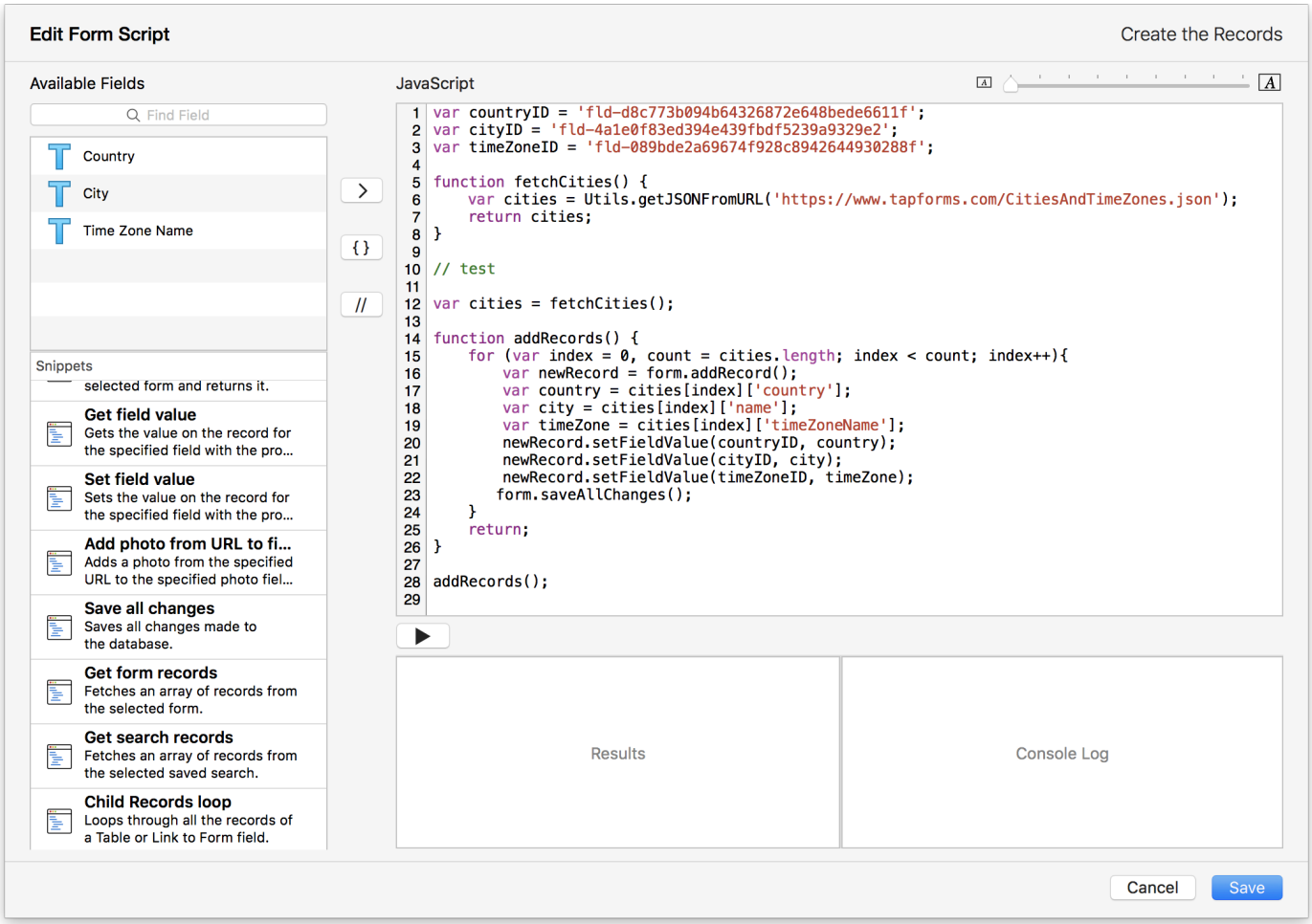
To create a Script field:

1. Open the Forms sidebar and click “**Fields**”
2. Click the **+ button** to add a new field
3. In the dropdown menu, choose the Script field type
4. Scroll down to find the **Edit Script…** button and click on it. You can also double-click on a Script field to quickly open the Script Edit window

After you’ve clicked the **Edit Script…** button, you’ll be able to input your own custom scripts, as well as use snippets and available fields to help you in the process. As you work, you can choose how you’d like the result to be returned to the field (number, date, text, etc.). You can also adjust the text size of the script you’re written with the font size slider. When you’ve finished, clicking **Save** will save the script to your field.

> If you don’t want to have your script update all the records in your form, uncheck the **Update records when saving** checkbox button. Saving will now simply save the script and will not loop through your records executing the script for each record.

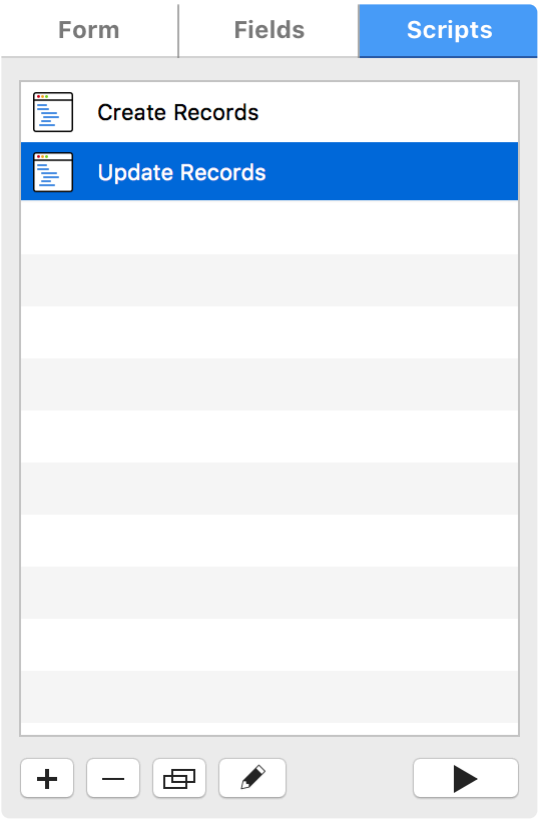
Form Level Scripts



In addition to field scripts, Tap Forms 5.3 also supports **form level scripts**, which can be used to create

new records and update existing records within your forms. Form scripts are executed manually by you.

To create and modify these scripts, visit the **Scripts** tab in the form inspector panel. You can double-click a Script to go directly to the Script Edit window. Scripts can also have keyboard shortcuts added to them to make running them easier when using the keyboard. All form scripts will appear in the new Scripts menu in the menubar at the top of the screen. Selecting a script from the Scripts menu will run the selected script.



Built-in Tap Forms specific objects

A Tap Forms database consists of Forms, Searches, Fields, Pick Lists, Categories, Records and values. A few of these things can be accessed right from within a script using the following built-in objects:

- form
- search
- record

See the Tap Forms JavaScript API to find out what specific functions are available to you.

Snippets

Within the Tap Forms Script Editor, there is a list of **Snippets** that you can use to help you get access to the records and values that you will need when writing your scripts. For example, to get access to the list of records in a form, use the following line of code:

```
var records = form.getRecords();
```

Once you've defined the `records` variable, you can then write code to loop through the array of `record` objects, picking out values from specific fields in your form. Tap Forms makes this easy by automatically writing code for you when you double-click on a field name and double-click on a Snippet.

For example, here's a block of code for a form level script which loops through all the records in a form and totals up the revenue from all of the movies in a Movies form:

```
var records = form.getRecords();
var revenue_total = 0;

for (var index = 0, count = records.length; index < count; index++){
   var theRec = records[index];
   var movie_revenue = theRec.getFieldValue('fld-987c9aac738a4f0fa1d18395902b3fc
1');
   if (movie_revenue) {
      revenue_total += movie_revenue;
      console.log('Revenue: ' + movie_revenue);
   }
}

revenue_total;
```

You may also notice there's a line of code that says `console.log('Revenue: ' + movie_revenue);`. That tells Tap Forms to output that line to the console log area on the Script Editor screen. This is very useful for debugging your scripts as Tap Forms doesn't have a formal JavaScript debugger built-in. You will need to use the `console.log()` function to aid in debugging.

Fetch Movie Data from Web Service

Here's an example **Field** script which fetches movie data when entering a value into a barcode field. You can even use it to scan a barcode using the iOS version. It will automatically fetch the data and fill in the fields for you, including downloading a movie case cover photo.

```
var movie_title_id = 'fld-987c9aac738a4f0fa1d18395902b3fb1';
var genre_id = 'fld-2a0d16d2aece4562b6f44170cf1736a6';
var case_cover_id = 'fld-e2cf02f376864a7cb9f090e4a597f3e4';
var summary_id = 'fld-28cc8f7f082c43818f1169c96c96e5a9';
var imdb_website_id = 'fld-9bc90613e8db45fea77579f35eb53b9d';
var barcode_field_id = 'fld-7e3ead95de51427fa5a467b2476d58cd';

function fetchProductInfo() {
```

```
        var barcode = record.getFieldValue(barcode_field_id);
        var url = 'https://api.upcitemdb.com/prod/trial/lookup?upc=' + barcode;
        var product_info = Utils.getJsonFromUrl(url);
        return product_info;
}

var product = fetchProductInfo();
var code = product['code'];

if (code == 'OK') {
        var items = product['items'];
        var item = items[0];
        var images = item['images'];
        var imageUrl = images[0];
        var offers = item['offers'];
        var offer = offers[0];
        var link = offer['link'];
        record.setFieldValue(imdb_website_id, link);
        record.setFieldValue(movie_title_id, item['title']);
        record.setFieldValue(summary_id, item['description']);

        if (imageUrl != undefined) {
                record.addPhotoFromUrlToField(imageUrl, case_cover_id);
        }
        form.saveAllChanges();
}
```

Please note that the field IDs in the above script (e.g. movie_title_id = 'fld-….') are unique to the form this script was written for. You would need to use your own field IDs from your own form to make this script work.

And here's another Field script which returns a simple value by multiplying 2 values together and returning the result:

```
var amount_id = 'fld.....';
var quantity_id = 'fld....';
var amount = record.getFieldValue(amount_id);
var quantity = record.getFieldValue(quantity_id);
var total = amount * quantity;
'The total is: ' + total;
```

In the above script, because it returns a Text value, make sure you set the Result Type to `Text`.

Last modified: Dec 16, 2020

8.1. JavaScript API

The Tap Forms JavaScript Application Programming Interface (API) provides you with specific extensions to the JavaScript virtual machine that lets you create, update, and delete various objects within your Tap Forms database document.

Here are a list of objects and the functions you can call on each.

document

Function/Property	Parameters	Returns	Description	Example
createNewFormNamed()	text	form	Call this to create a new form with the specified name.	`document.createNewFormNamed('My New Form');`
getFormIdsByName()	text	array	Returns the list of form IDs for the specified form name.	`document.getFormIdsByName('Movies');`
getFormNamed()	text	form	Call this to fetch a form with the specified name.	`document.getFormNamed('My Movie Library');`
getForms()	none	array of forms	Call this to fetch an array of all the forms in your database document.	`document.getForms();`
getFormWithId()	form ID	form	Call this to get a form with the specified form ID.	`document.getFormWithId('frm-1234567890abcdef');`
getId()	none	text	Returns the ID of the current document	`document.getId();`

Function/Property	Parameters	Returns	Description	Example
getPickListNamed()	text	Pick List	Call this to fetch a Pick List with the specified name.	`document.getPickListNamed('Priorities');`
getPickLists()	none	array of Pick List	Call this to fetch the list of Pick Lists in the database.	`document.getPickLists();`
name	none	text	Returns the name of the document.	`document.name;`
saveAllChanges()	none	Bool	Call this to save any changes your script has made to the database document.	`document.saveAllChanges();`
selectFormLayout()	form ID, layout ID	none	Selects a form and a specific layout. Pass null for the layout ID to select the Default Layout	`document.selectFormLayout(form_id, layout_id);`

form

Function/Property	Parameters	Returns	Description	Example
addField()	Field	none	Adds the specified Field to the form.	`form.addField(field);`
addNewFieldNamedWithType()	name, type (text, number, calc, location,	Field	Adds a new field to the form with the specified name and	`var field = form.addNewFieldNamedWithType('Quantity', 'number');`

Function/Property	Parameters	Returns	Description	Example
	photo)		field type.	
addNewRecord()	none	record	Adds a new record to the form.	`var newRecord = form.addNewRecord();`
addNewScriptNamed()	text	Script	Adds a new Script to the form.	`var newScript = form.addNewScriptNamed("My Script");`
deleteRecord()	record	error string	Deletes the specified record from the form.	`form.deleteRecord(someRecord);`
deleteScriptNamed()	text	error string	Deletes the first Script with the specified name from the form.	`form.deleteScriptNamed("My Script");`
deleteScriptWithId()	text	error string	Deletes the Script with the specified ID from the form.	`form.deleteScriptWithId("scr-blahblah");`
getAvgOfField()	field ID	number	Returns the average value of all the records in the form for the specified field.	`form.getAvgOfField(fieldID);`
getFieldIds()	none	array	Returns an array of all the field IDs in the form.	`form.getFieldIds();`
getFields()	none	array	Returns an array of all the TFField objects in the form.	`form.getFields();`
getFieldsForType()	type (text, number, check_mark,	array	Returns an array of all the TFField	`form.getFieldsForType('text');`

Function/Property	Parameters	Returns	Description	Example
	date, time, date_time, calc, note, etc.)		objects in the form for the specified type.	
getFieldNamed()	text	Field	Returns the TFField object for the specified field name.	`form.getFieldNamed('Movie Title');`
getFieldWithId()	field ID	Field	Returns the TFField object for the specified field ID.	`form.getFieldWithId('fld-abcde1234');`
getId()	none	form ID	Returns the internal unique ID of the form.	`form.getId();`
getLayoutNamed()	text	Layout	Returns the TFFormLayout object for the specified layout name.	`form.getLayoutNamed('Print Layout');`
getLayoutWithId()	layout ID	Layout	Returns the TFFormLayout object for the specified layout ID.	`form.getLayoutWithId(layout_id);`
getLayouts()	none	array of layouts	Returns all the layouts for the form.	`form.getLayouts();`
getMaxOfField()	field ID	number	Returns the maximum value of all the records in the form for the specified field.	`form.getMaxOfField(fieldID);`
getMinOfField()	field ID	number	Returns the	`form.getMinOfField(fieldI`

Function/Property	Parameters	Returns	Description	Example
			minimum value of all the records in the form for the specified field.	`D);`
getRecords()	none	array	Returns an array of record objects for the specified form.	`var records = form.getRecords();`
getRecordWithId()	record ID	record	Returns the record for the specified record ID.	`form.getRecordWithId('rec-123456789abcdef');`
getRecordsForSearchTerm()	text	array	Returns an array of record objects for the specified search term.	`var records = form.getRecordsForSearchTerm("search term");`
getScriptNamed()	text	Script	Returns the first Form Script with the specified name.	`form.getScriptNamed("My Script");`
getScripts()	none	array of Script	Returns the array of Script objects in the form.	`form.getScripts();`
getSearchNamed()	text	Search	Returns a search object given the name of a search.	`form.getSearchNamed('Genre: Action &amp; Adventure');`
getTotalOfField()	field ID	number	Returns the total sum of all the records in the form for the specified field.	`form.getTotalOfField(fieldID);`

Function/Property	Parameters	Returns	Description	Example
name	none	text	Returns the name of the form.	`form.name;`
runScriptNamed()	text	none	Runs the Form Script with the specified name. Used for including scripts inside other scripts.	`form.runScriptNamed('Common Functions');`
saveAllChanges()	none	Bool	Call this to save any changes your script has made to the database document.	`form.saveAllChanges();`
selectRecord()	record	none	Selects the specified record on the form.	`form.selectRecord(someRecord);`

field

Function/ Property	Parameters	Returns	Description	Example
defaultValue	none	text	Get or sets the field's default value.	`field.defaultValue = 'some value';`
fieldDescription	none	text	Returns the description of the field.	`field.fieldDescription;`
fieldType	none	text	Returns the type of the field.	`field.fieldType;`
form	none	Form	Returns the form the field belongs to.	`field.form;`
getId()	none	field ID	Returns the internal unique ID of the field.	`field.getId();`

Function/ Property	Parameters	Returns	Description	Example
hideField	none	none	Sets the field to be hidden or not.	`field.hideField = true;`
isCollapsed	none	none	Sets the Section field to be collapsed or not.	`field.isCollapsed = true;`
name	none	text	Returns the name of the field.	`field.name;`
script	none	text	Returns the JavaScript code for the specified field.	`field.script;`
sortOrder	none	number	Get or set the field sort order.	`field.sortOrder = 2;`

layout

Function/ Property	Parameters	Returns	Description	Example
getId()	none	layout ID	Returns the internal unique ID of the layout.	`layout.getId();`
name	none	text	Returns the name of the layout.	`layout.name;`

pick lists

Function/ Property	Parameters	Returns	Description	Example
getId()	none	pick list ID	Returns the internal unique ID of the pick list.	`pick_list.getId();`
name	none	text	Returns the name of the Pick List.	`pick_list.name;`
values	none	Array of Dictionary	Returns an array of dictionaries for the Pick List. The dictionary keys are `value` and `valueColour`	`pick_list.values;`

record

Function/Property	Parameters	Returns	Description	Example
addNewRecordToField()	field_id	record	Used for adding a new record to a Link to Form or Table field.	`var newRecord = record.addNewRecordToField(field_id);`
addFileFromUrlToField()	url, field_id	none	Fetches a file from the specified URL and adds it to the File Attachment field specified by field_id. The file can be a local file URL on disk in the Mac version when you have the Script Folder specified on the General Preferences window.	`record.addFileFromUrlToField(file_url, file_field_id)`
addPhotoFromUrlToField()	url, field_id	none	Fetches a photo from the specified URL and adds it to the Photo field specified by field_id	`record.addPhotoFromUrlToField(image_url, case_cover_id)`

Function/Property	Parameters	Returns	Description	Example
addRecordToField()	record, field_id	none	Used for adding an existing record to a Link to Form or Table field.	`record.addRecordToField(someRecord, field_id);`
dateCreated	none	date	Returns the date the record was created.	`var created = record.dateCreated;`
dateModified	none	date	Returns the date the record was modified.	`var modified = record.dateModified;`
deviceName	none	text	Returns the name of the device that modified the record last.	`var device = record.deviceName;`
duplicate()	none	record	Returns a new copy of the record.	`var copyOfRecord = record.duplicate();`
form	none	Form	Returns the form this record belongs to.	`record.form;`
getAvgOfLinkedFieldForField()	linked field ID, field ID	number	Returns the average of all the records in the linked field for the specified field.	`record.getAvgOfLinkedFieldForField(linkedFieldID, fieldID);`
getFieldValue()	field_id	object	Gets the value for the specified	`var barcode = record.getFieldValue(barcode_id);`

Function/Property	Parameters	Returns	Description	Example
			field from the record. The return type depends on the field you're getting the value from.	
getId()	none	record ID	Returns the internal unique ID of the record.	`record.getId();`
getMaxOfLinkedFieldForField()	linked field ID, field ID	number	Returns the maximum value of all the records in the linked field for the specified field.	`record.getMaxOfLinkedFieldForField(linkedFieldID, fieldID);`
getMinOfLinkedFieldForField()	linked field ID, field ID	number	Returns the minimum value of all the records in the linked field for the specified field.	`record.getMinOfLinkedFieldForField(linkedFieldID, fieldID);`
getNoteFieldValue()	field_id	note value	Gets the rich text note field value from the specified Note field.	`record.getNoteFieldValue(field_id');`
getRecordColor()	none	web hex color	Gets the web hex colour value for the	`var color = record.getRecordColor();`

Function/Property	Parameters	Returns	Description	Example
			record.	
getTotalOfLinkedFieldForField()	linked field ID, field ID	number	Returns the total sum of all the records in the linked field for the specified field.	`record.getTotalOfLinkedFieldForField(linkedFieldID, fieldID);`
getUrl()	none	url	Gets the URL for the record. This is the same URL as the Copy Record Link function under the Edit menu.	`record.getUrl();`
removeRecordFromField()	record, field_id	none	Removes a record from a Link to Form or Table field.	`record.removeRecordFromField(childRecord, field_id');`
recordExistsInField()	record, field_id	boolean	Returns true if the record exists in the Link to Form or Table field.	`record.recordExistsInField(field_id');`
setFieldValue()	field_id, value	none	Sets the value on the specified field.	`record.setFieldValue(movie_title_id, 'The Terminator');`
setFieldValue()	field_id, value, boolean	none	Sets the value on the specified field and	`record.setFieldValue(movie_title_id, 'The Terminator', false);`

Function/Property	Parameters	Returns	Description	Example
			optionally disables scripts that would run by default when the field value changes if the third parameter is false.	
setFieldValues()	dictionary, boolean	none	Sets the values on multiple fields at once given a dictionary of field ids and values. Second boolean parameter optionally disables scripts that would run by default if the parameter is false.	`record.setFieldValues({ [field1_id]: "value1", [field2_id]: "value2", [field3_id]: "value3" }, false);`
setNoteFieldValue()	field_id, value	none	Sets the rich text note field value on the specified Note field.	`record.setNoteFieldValue(field_id, 'note_value');`
setRecordColor()	web color	none	Sets the color for the record to the specified	`record.setRecordColor('#cc9900');`

Function/Property	Parameters	Returns	Description	Example
			web hex color.	
values	none	dictionary	Returns the values in dictionary format that are associated with this record. The key in the dictionary is the field ID.	`record.values;`

script

Function/ Property	Parameters	Returns	Description	Example
getId()	none	script ID	Returns the internal unique ID of the script.	`script.getId();`
isFavourite	none	boolean	Gets or sets the script to be a favourite or not.	`script.isFavourite = true;`
name	none	text	Returns the name of the Script.	`var scriptName = script.name;`
code	none	text	Returns the source code of the Script.	`var code = script.code;`
scriptDescription	none	text	Returns the description of the Script.	`var description = script.scriptDescription;`

search

Function/ Property	Parameters	Returns	Description	Example
getAvgOfField()	field ID	number	Returns the average value of all the records in the search for the specified field.	`search.getAvgOfField(fieldID);`

Function/ Property	Parameters	Returns	Description	Example
getMaxOfField()	field ID	number	Returns the maximum value of all the records in the search for the specified field.	`search.getMaxOfField(fieldID);`
getMinOfField()	field ID	number	Returns the minimum value of all the records in the search for the specified field.	`search.getMinOfField(fieldID);`
getRecords()	none	array	Returns an array of record objects for the specified search.	`var records = search.getRecords();`
getTotalOfField()	field ID	number	Returns the total sum of all the records in the search for the specified field.	`search.getTotalOfField(fieldID);`
name	none	text	Returns the name of the Search.	`search.name;`

Utils

Function/Property	Parameters	Returns	Description	Example
addToCalendar()	dictionary, start date, end date	event identifier	Adds an event given the specified start date, end date, and event info dictionary.	`See example below`
addToReminders()	dictionary, due date	none	Adds a reminder to the Apple Reminders for the specified reminder	`See example below`

Function/Property	Parameters	Returns	Description	Example
			dictionary and due date.	
alertWithMessage()	title, message	none	Displays an alert with the specified title and message	`Utils.alertWithMessage('Script Run Complete!', 'Cool!!!!!');`
copyTextFromClipboard()	none	text	Returns whatever text is on the clipboard.	`Utils.copyTextFromClipboard()`
copyTextToClipboard()	text	none	Copies the specified text to the clipboard.	`Utils.copyTextToClipboard('Some text')`
getDataFromUrl()	url	binary data	For the specified URL, returns a binary data response.	`var photo_data = Utils.getDataFromUrl(url);`
getDeviceName()	text	none	Returns the name of the device.	`var device_name = Utils.getDeviceName();`
getJsonFromUrl()	url	JSON	For the specified URL, returns a JSON response that you can get values from.	`var product_info = Utils.getJsonFromUrl(url);`
getTextFromUrl()	url	text	For the specified URL,	`var product_info = Utils.getTextFromUrl(url);`

Function/Property	Parameters	Returns	Description	Example
			returns a text response.	
getUserName()	text	none	Returns the name of the user logged in to the device. For iOS, returns “Mobile User”	`var user_name = Utils.getUserName();`
openUrl()	url	none	For the specified URL, calls the operating system to open it.	`Utils.openUrl(url);`
postContentToUrlWithContentType()	text, url, content type	dictionary	For the specified URL, posts the text content using the specified content type.	`Utils.postContentToUrlWithContentType(some_string, url, 'application/json');`
postJsonToUrl()	JSON, url	dictionary	For the specified URL, posts the JSON content.	`Utils.postJsonToUrl(json_string, url);`
printRecordsShowPanel()	boolean	none	When true passed in, shows the print panel before printing records. When false	`Utils.printRecordsShowPanel(true);`

Function/Property	Parameters	Returns	Description	Example
			is passed in, prints the current view without showing the print panel.	
updateCalendarEvent()	string, dictionary, start date, end date	none	Given an event identifier previously provided when adding an event, update the event information.	`See example below`
updateReminder()	string, dictionary, due date	none	Given a reminder identifier previously provided when adding a reminder, update the reminder information.	`See example below`

Prompter class – for prompting for input.

You can also prompt a user for input parameters, then take the input and use it for populating fields. Here's an example:

```
var output = function printOut(continued) {
       if (continued == true) {
           console.log(username + ", " + password + ", " + email_address + ", "
+ other_field + ", " + genre);
       } else {
          console.log("Cancel button pressed.");
```

```
        }
}


var username = 'test username';
var password;
var email_address;
var other_field;
var genre;
var genres = ['Action &amp;amp; Adventure', 'Comedy', 'Drama', 'Horror', 'Science Fic
tion'];

let prompter = Prompter.new();
prompter.cancelButtonTitle = 'No Thanks';
prompter.continueButtonTitle = 'Go For It!';
prompter.addParameter('Username: ', 'username', '', username)
.addParameter('Password: ', 'password', 'secure')
.addParameter('Email Address: ', 'email_address')
.addParameter('Other: ', 'other_field')
.addParameter('Genre: ', 'genre', 'popup', genres)
.addParameter('Media Type: ', 'media_type', 'picklist', 'Media Types List')
.show('Enter a Username and Password and Stuff', output);
```

Note: the following parameters are valid **.addParameter(label, field_name, control type, values_list, default_value)**

Progress class – for monitoring the progress of long running scripts.

You can ask Tap Forms to display a progress indicator while you run scripts that might take a while to run. For example:

```
var progress = Progress.new();
function ProcessRecords(records) {
        for (index in records) {

                if (progress.cancelled) {
                        console.log('Cancelled operation');
                        break;
                }
```

```
                var aRec = records[index];
                // do something with the record.

                // update the progress indicator.
                progress.updateProgress(index);
        }
}

var records = form.getRecords();
progress.totalCount = records.length;
progress.currentCount = 1;
console.log('Begin');

// show the progress sheet
progress.show('Processing Records...');

ProcessRecords(records);

// dismiss the progress sheet when done.
progress.dismissProgress();

// save your changes
form.saveAllChanges();

console.log('End');
```

Utils.addToCalendar()

You can ask Tap Forms to add an event to your Apple Calendar programatically. When you add an event, Tap Forms will return an event identifier which you could store somewhere, perhaps in another field that you could then retrieve at a later date and then update the event.

```
function Add_And_Update_Event() {

        var event_info = {"calendar_name" : "Work",
                          "title" : "Test Event 1",
                          "location" : "Big Ben, London, UK",
                          "notes" : "This is a note",
                          "url" : "https://www.tapforms.com",
                          "all_day" : true};
```

```
        var start_date = new Date();
        // Create new Date instance
        var end_date = new Date();

        // Add a day
        end_date.setDate(end_date.getDate() + 1);

        var identifier = Utils.addToCalendar(event_info, start_date, end_date);
        console.log(identifier);

       // Update the calendar if you want. But you don't need to update right aft
er you've added.
       // You'll want to store the identifier obtained from above somewhere (in a
nother field) so
       // later on you can update the calendar entry if you wish.

        event_info["title"] = "Hello Event 2";
        Utils.updateCalendarEvent(identifier, event_info, start_date, end_date);

}

Add_And_Update_Event();
```

Utils.addToReminders()

You can ask Tap Forms to add an reminder to your Apple Reminders programatically.

```
function Add_And_Update_Reminder() {

        // Create new Date instance
        var due_date = new Date();

        // Add a day
        due_date.setDate(due_date.getDate() + 1);

        var event_info = {"list_name" : "Work",
                                    "title" : "Test Event",
                                    "priority" : 1,
                                    "notes" : "test note",
                                    "repeat_option" : 2};

        var identifier = Utils.addToReminders(event_info, due_date);
```

```
        console.log(identifier);
        event_info["title"] = "Hello Reminder 2";
        Utils.updateReminder(identifier, event_info, due_date);

}

Add_And_Update_Reminder();
```

Calling a script from a URL

You can call a Form Script from a URL when the URL is of the following format:

`tapformz://script/[document ID]/[form ID]/[form script name]?key1=value1&key2=value2...`

`tapformz://script/db-xxxx/frm-xxxx/Test+Script?option1=A&option2=B`

You can click the link button on the Script Editor window to get a copy of the script URL.

Notes:

- Tap Forms documents must be within the Tap Forms Container to receive and act upon URLs. If your document is visible on the main Database Documents window then you're good.
- The query component of the URL must have spaces and double-quotes escaped.
- The `=`, `&`, and `#` characters *within query values* should also be percent-escaped. If this requirement is not followed, Tap Forms may not be able to identify the target script of the URL, listing it as (null) in the Console.

You will also have access to a special property in the Script editor called `parameters`.

To reference a parameter you would use this code:

```
var value_1 = parameters["key1"];
```

The `parameters` property will only be available when calling the script from a URL.

Here's an example script:

```
function Test_Script() {
        var hello_world = "Hello World!";
        console.log(hello_world);
        var parms = parameters;
```

```
        console.log(parms["option1"]);
        var prompt = Prompter.new();
        prompt.show('Does this work?');
}

Test_Script();
```

Console Logging.

You can log your output to the console log view with the following code:

```
console.log("Colour Me This!", "#c90000");
```

The second parameter is optional and allows you to provide a hexadecimal web colour for your output.

Testing Tap Forms script code with an incoming URL.

Call the URL from the external app once. Tap Forms will remember the parameters. You can then edit and re-run the script within Tap Forms without resending the URL from the external app unless you make changes to the URL. The script editor can be open while an incoming URL is received. The script will run as usual, and output will be recorded in the Console.

The parameters global variable will contain query keys/values for the pairs specified within the URL. Although a query pair may have existed within the previous URL action, it will not exist within the parameters variable if the new URL does not include that pair.

The parameters global variable will revert between test runs of the Tap Forms script; i.e., if your script changes the contents of the variable, the next time the script is run, those changes will have been reverted to the values specified by the URL.

Last modified: Feb 20, 2023

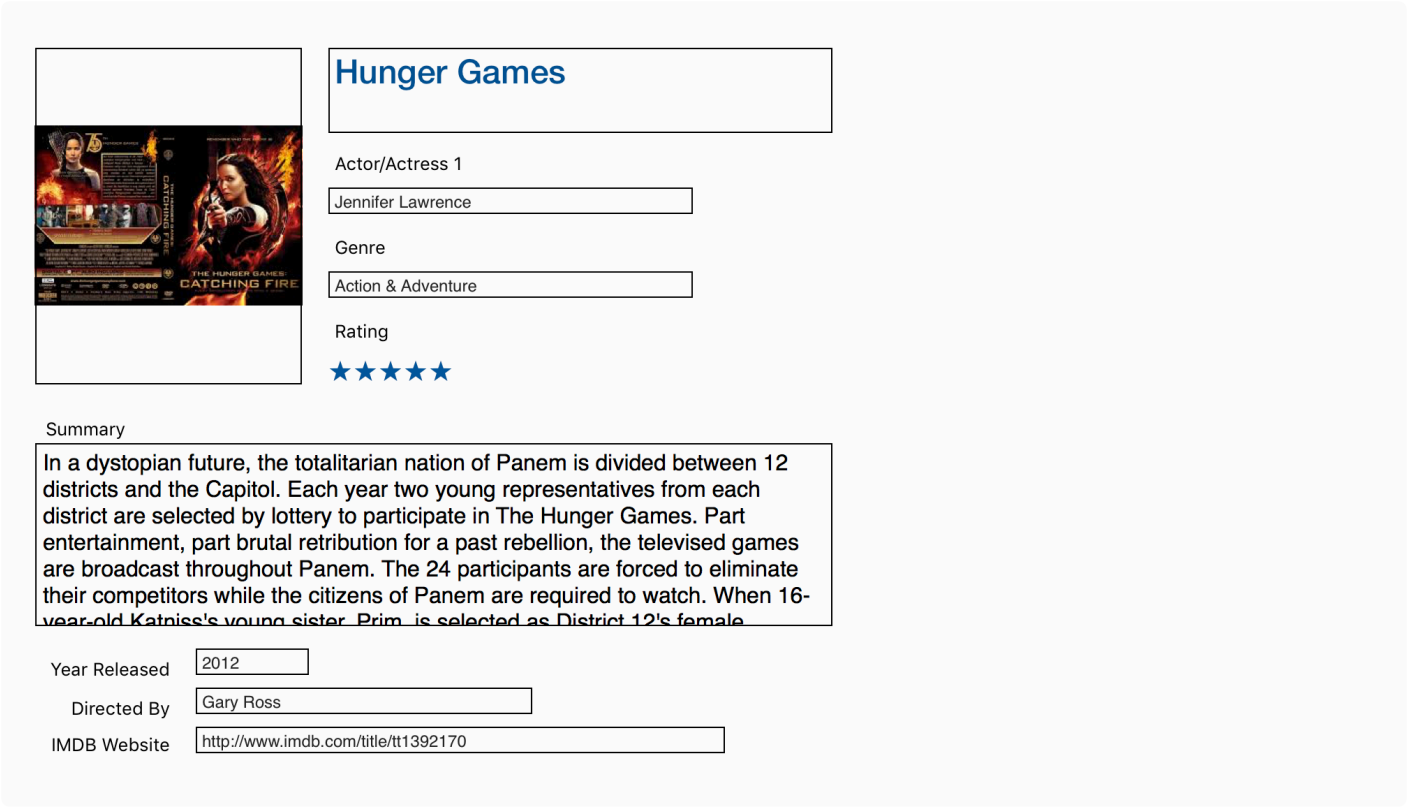
9. Layouts

The benefits offered by layouts are for Tap Forms power users and beginners alike. In the following “Layouts” topics, you’ll read about how layouts function and the unique ways you can design the perfect layouts for you.

Layouts

Last modified: Jun 07, 2018

9.1. What are Layouts?



With **forms**, there are thousands of ways to log and customize your information to better create a digital filing cabinet for your life. By default, however, there’s only one way to *view* this information: the default layout. Though helpful in presenting your information in a digestible way, the default layout may not suit your exact needs. For this reason, we’ve built in the ability to create additional layouts.

Custom Layouts

Custom layouts are centered around the **fields** you’ve assigned to your records, allowing you to add

information in a visual format. By adding your data to a canvas and controlling every aspect of how it's displayed, you can create an ideal presentation of what's present in your records. Whether you're designing for digital or print, layouts in Tap Forms are versatile for your needs.

Layouts are found **below the toolbar** in the middle of the screen – listed first is the default layout, followed by any custom options you've created. Additionally, the toolbar features a **layout button** which opens the layout tab; this is the central location for making any changes to layouts you've created.

When designing layouts, much of the work comes from simple drag and drop techniques. To get started, drag field information onto the canvas and adjust the **size**, **color**, **stroke**, and more. As you continue to add information, the layout will update; the more data you add, the more useful the layout can be. For more information on designing layouts, visit the **Designing Layouts** topic.

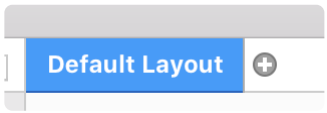
Forms are able to contain multiple layouts, and each layout will apply to each individual record within that form. This means that the layout you create for, say, "the Hunger Games" will populate to every other movie in your collection. And with the ability to **print layouts**, you can also use them for real-world applications, too.

Last modified: Jun 07, 2018

9.2. Designing Layouts

As mentioned in What are Layouts?, use Layouts when you want to see your records in a unique way. Since layouts are created by you, their design is also determined by your preference; whether you'd like something complex or straightforward, Tap Forms can support what you're looking for.

To get started, click the + button to the right of the "Default Layout" tab under the toolbar.



This will launch the canvas for a new layout if you're currently in Single-Column List or Photo Grid views; if you're currently seeing one of the other three views, you'll need to move to the aforementioned options. Along the right side of the window, the **Layout Inspector Panel** will surface to provide you the tools you need to create the layout. This panel can be toggled as needed to declutter the interface; however, it's a critical piece of the interface when working with a custom layout.

To delete a layout

1. Make sure you're in **Edit Layout** mode.
2. Hover your mouse over the custom layout tab until you see the **(x)** button appear.
3. Click the **(x)** button. You'll be prompted if you want to delete the layout.
4. Alternatively, under the Layouts menu, select **Delete Layout**

> ! There is no undo for deleting layouts, so make sure you really want to do this.

Much of how you design the layout is centered around text. To begin:

1. Open the Layout Inspection Panel
2. Click the appropriate field and drag it onto the canvas
3. Edit its size and shape by dragging the box's edges
4. Adjust the font size, type, and color via the information below the layout bar
5. Work with the stroke and fill of the box inside the Layout Inspection Panel

> ✻ By checking the **Create Field Titles** checkbox found below the Fields list in the Layout Inspection Panel, Tap Forms will automatically pair a label with the field dragged onto the canvas. Labels will take the default field name, but can be changed to your preference. You can also change the label's font, size, color, and text alignment.

As you continue to add things to the canvas, Tap Forms will help you keep everything looking neat and tidy

using rulers and snap features.

Formatting the Document

When working with layouts, you'll also decide the format of the document. Included are options for:

- **Layout name**, where you can name the custom layout to be displayed on the tab button
- **Designing for screen, paper, or labels**. Whereas designing for **screen** is optimizing for the digital world and is best for data entry layouts, **printer** and **labels** are for more physical applications. Printer is great for things like invoices and marketing descriptions, while labels can use more than 1000 Avery label templates or any custom labels for necessary applications
- **Printers**, which lets you select a printer
- **Page size** for resizing the paper size (Letter, Envelope, A4, etc.)
- **Orientation**, either landscape or portrait

As you continue to work with your custom layout, you'll take notice of certain features that will help you create a more robust layout. Below the toolbar are:

- A set of buttons representing the zoom level, tab order, rulers, and snap to grid functionality, and to show or hide the text inspector bar

To adjust the tab order of your fields

1. Click the tab order button, then click the 0 that appears next to the fields.
2. Type in a new value and press the Return key to accept the new value.
3. Keep incrementing the tab order value until all your fields have a non-zero value.
4. Turn off the tab order function by clicking the tab order button again.
5. Turn off the edit layout mode by clicking the Layout button again. The layout inspector panel should now be hidden.
6. Click in your first field on the custom layout and press the tab key. Tap Forms should follow the order that you've specified with each of the tab order values. To tab out of a Note field, press option-tab.

- Layout design tools, including options for adding lines, shapes, text, or photos into your layouts

The **Arrow** tool lets you select, resize, and drag around the objects on your layout page.

The **Line, Oval, and Rectangle** tools allow you to draw lines, ovals and rectangles on the page. You can constrain the line, oval or rectangle by holding down the shift key as you drag a handle around on the page. You can change the stroke of a line, circle or rectangle to make it thicker or thinner. You can also change the stroke colour of lines, ovals, and rectangles using the Graphic Properties Inspector which will appear

when you select an object. Ovals and rectangles can also have their fill colours changed.

The **Text** tool allows you to create blocks of text which will stay the same on every record. This would be useful for things like company names, addresses, or any other kind of text that you want to remain the same on every record.

> **Mail merge.** If you enter a field name within square brackets in a static Text block, Tap Forms will replace the field name and square brackets with the value from the field for that record when you print your record. For example: “Dear **[First Name]**, the amount owing on your account is $ **[Amount Owing]** .”

The **Image** tool allows you to create areas on the layout which will be filled with any image you have available on your computer. These images will stay the same on every record. This would be good for things like a company logo, icon, photo or any other kind of image you want to have on every record.

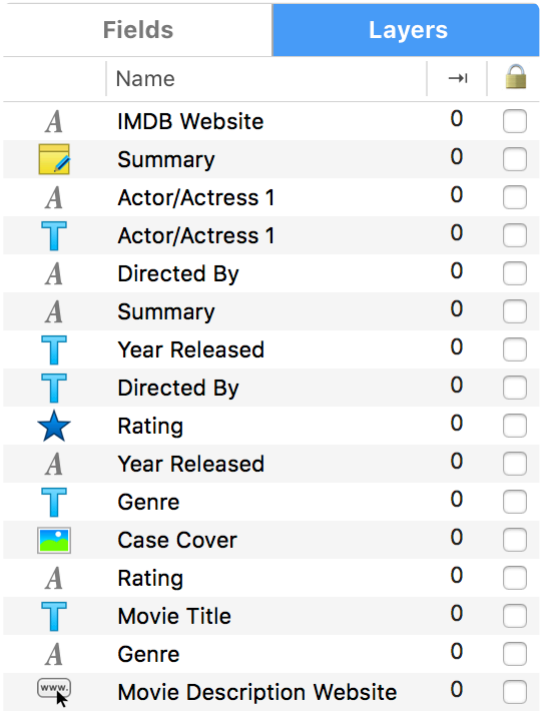
> The Image tool is different than a Photo field in your form. A Photo field will change its image with every record while the Image tool’s image will remain the same on every record.

- Text and alignment controls like typeface, size, color, and other alignment selections

Layers

Also present in the layout designer are layer customization options, where you can see the available layers and rearrange them up and down, including sending layout objects behind or in front of others. This is found in the tab next to “Fields” in the sidebar. You can also adjust the tab order here by double-clicking on the 0 next to a field and typing in a new value.

You can also lock layers so they cannot be moved accidentally. To lock a layer, click the checkbox button on the right.



To delete an object from your custom layout, just select it and press the Delete key on your keyboard. This will only work when the layout inspector panel is visible so that you're in layout design mode. To delete the field completely from your form, click on the Form button in the toolbar, then the Fields tab. Then click on the field you want gone forever, then press the – button to delete it. If you do that before deleting the object from your layout, the object on your layout will still be hanging around, but will be non-functional. So delete it from your custom layout first and then delete the field itself.

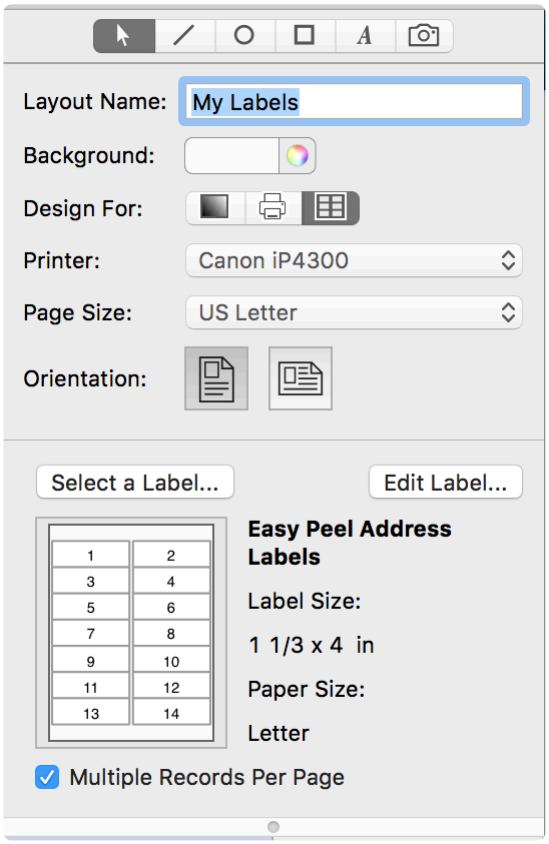
Last modified: Jan 02, 2023

9.3. Labels

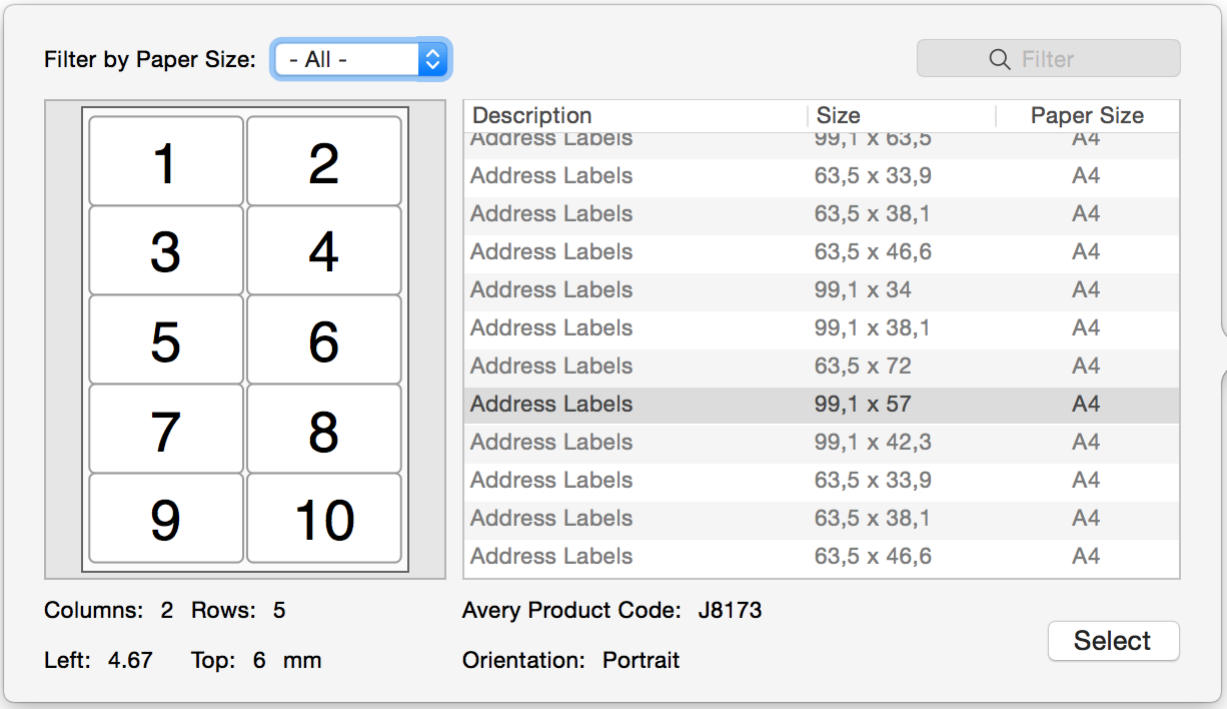
Tap Forms has a very powerful label design engine built-in. You can select from over 1000 Avery® label templates, customize the built-in templates, or create your own from scratch.

Before you can select a label template, create a new custom layout and choose the **Labels** option next to the **Design for** property in the **Layout Inspector** panel on the right. Once you do that, you'll see the **Select a Label** button appear.

For more information, see the **Designing Layouts** topic.

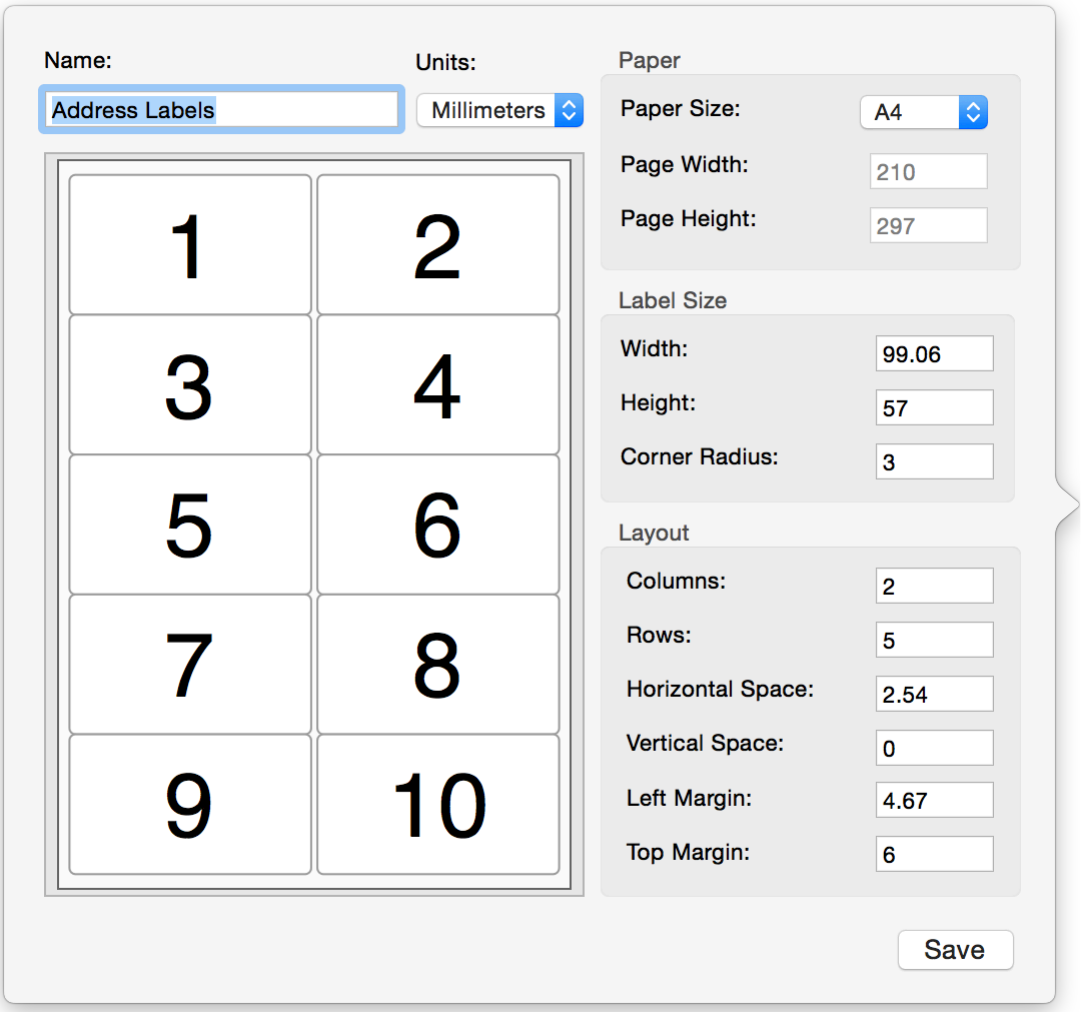


When you click the **Select a Label** button, the following popover view will appear:



You can filter labels by paper size or you can enter in a keyword or Avery Product Code to help you find the label type you're looking for. Click the **Select** button when you've found the label template you're looking for.

To customize the selected label or to create your own label from scratch, click on the **Edit Label** button.



You can also choose to print the same label per page or you can select the **Multiple records per page** option which will tell Tap Forms to print a different record on each label. Printing the same record for each label would be very useful for printing something like a Business Card where you want the same information printed on each card. Printing multiple records per page would be perfect for printing Address Labels where you want a different address on each label.

If you don't see the **Multiple Records Per Page** option, drag the horizontal divider bar on the layout inspector panel down a little bit to reveal that option.

After you've selected or edited your label format, it's time to drag fields into the layout designer area and customize the design of your label. To get a larger view of your labels, adjust the zoom level to be higher than 100%.

To print your labels, select the Print function from the File menu and make sure you have

the **Details (1 record per page)** option selected. Note, if you have **Multiple records per page** enabled for your label, you will still get multiple records per page printed, despite what the **Details** option says.

Last modified: Jun 07, 2018

10. Migrate from Tap Forms 3.5

To migrate to Tap Forms 5, a backup file from the old version is required.

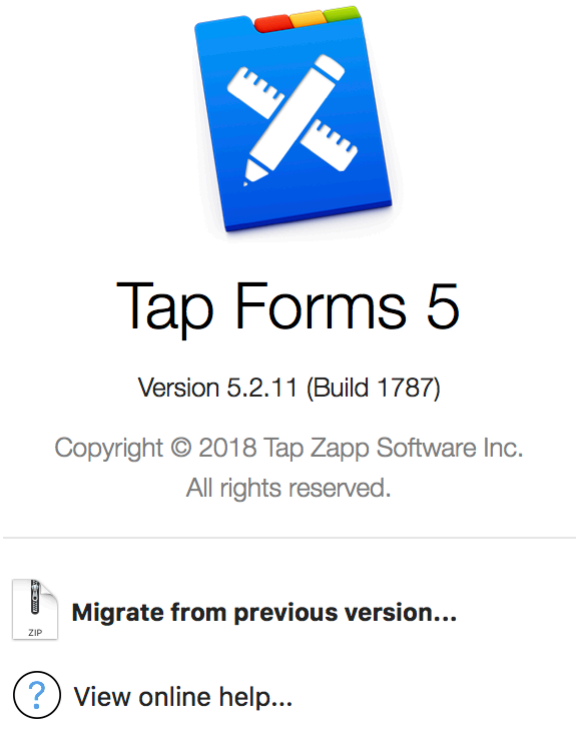
> ! You only need to migrate your database on one device. Use the Send Document function to transfer that migrated document over to your other devices. If you do not do this, you will not be able to sync that document between your devices.

Decrypt the old database

Before migrating to Tap Forms 5, I recommend decrypting the database in the old version first. This will make migrating easier. You can re-encrypt the new database document later.

Backing Up

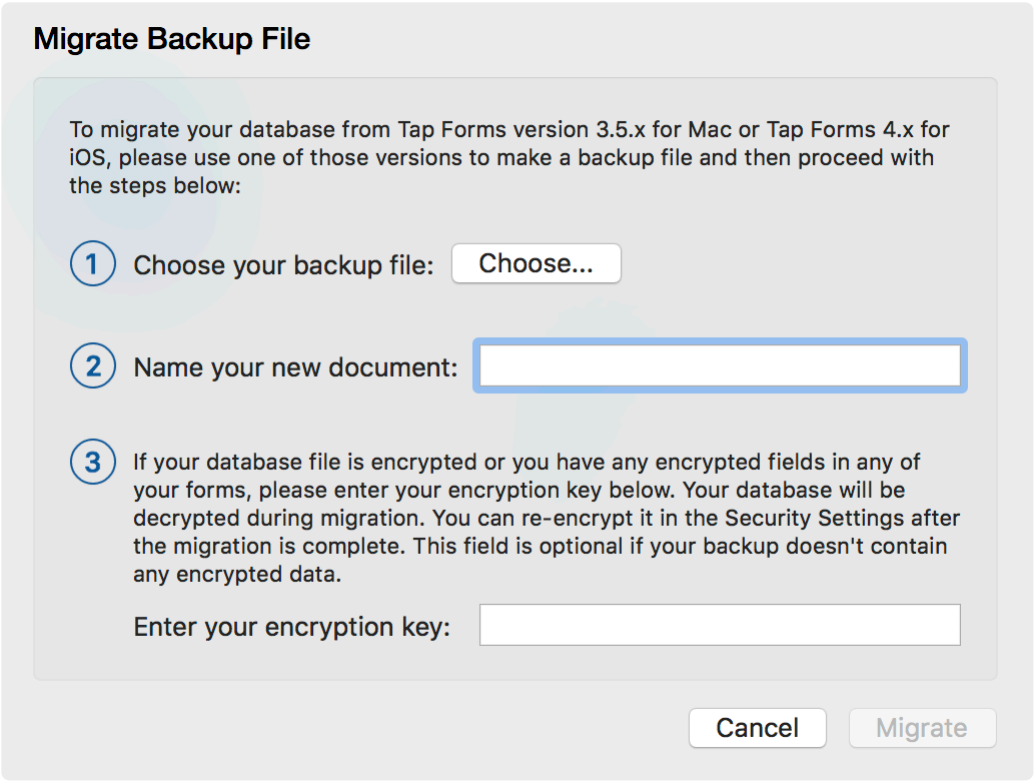
1. Create a backup using the old version of Tap Forms* by selecting the **Backup** command from the **File** menu
2. Save your backup file somewhere convenient, such as your Desktop
3. Launch Tap Forms 5
4. Click on the "**Migrate from previous version…**" option.
5. Follow the steps shown on screen



1. **Choose your backup file**: This is where you'll choose the version of the database document that

you'd like to restore into Tap Forms. By clicking the "**Choose…**" button and navigating to the relevant location, you can choose the file for restore.

2. **Name your new document**: Type in the name of your new document. This can be the previous document's name or something new.
3. Ignore the instructions in the app, I suggest decrypting your database in Tap Forms 3 before migrating the backup file in Tap Forms 5.



Once you've completed the above steps, you'll be on your way to working with your old data in Tap Forms 5.

Last modified: Oct 28, 2021

11. Relationships

Tap Forms has the ability to link forms together to establish relationships between them. There are currently three types of links:

1. One to Many
2. Many to Many
3. Join

To make it easier to identify what is being talked about in this section of the documentation, I'll refer to the main form as the **parent** form. Any form that the main form links to will be called the **child** form.

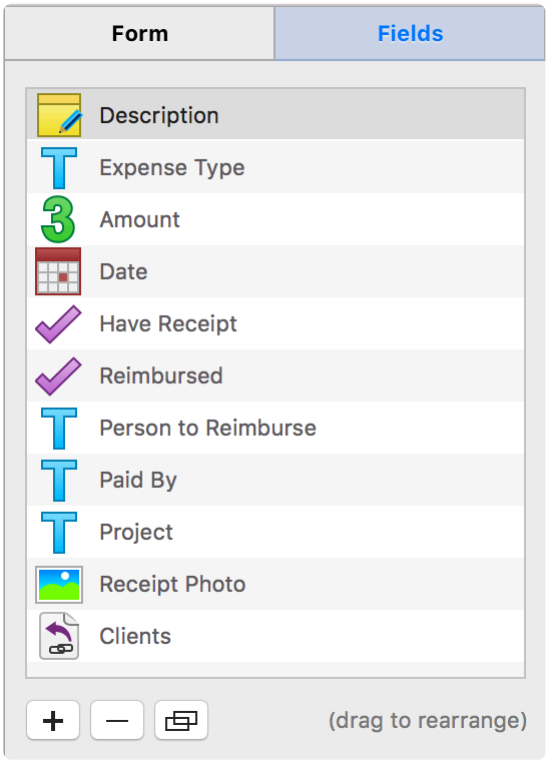
One to Many

The One to Many link type is useful in situations where the child form's data is unique to the parent record it's linked to. That is, no two parent records should link to the exact same records from the child form. It's easiest to describe this situation using an example.

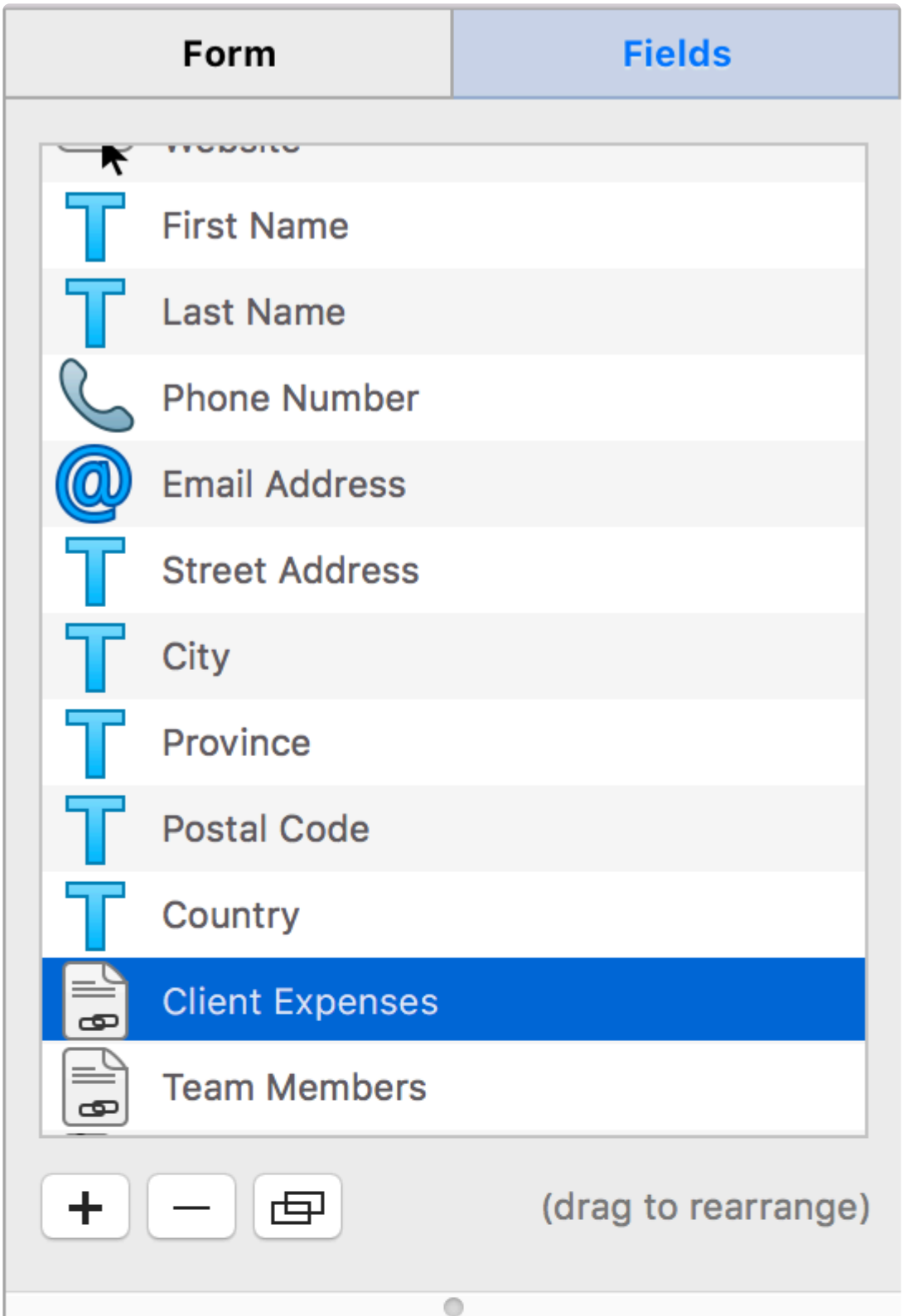
Keeping Track of Clients and Expenses

If you wanted to keep track of all the expenses you incur when working for a specific client, you wouldn't want those expenses to be linked to any other client than the one for whom you are currently working. A one to many relationship is useful in this situation. One client has many unique expenses which are attributable only to it.

Create a Client Expenses form:



Create a Clients form and link it to the above Client Expenses form:

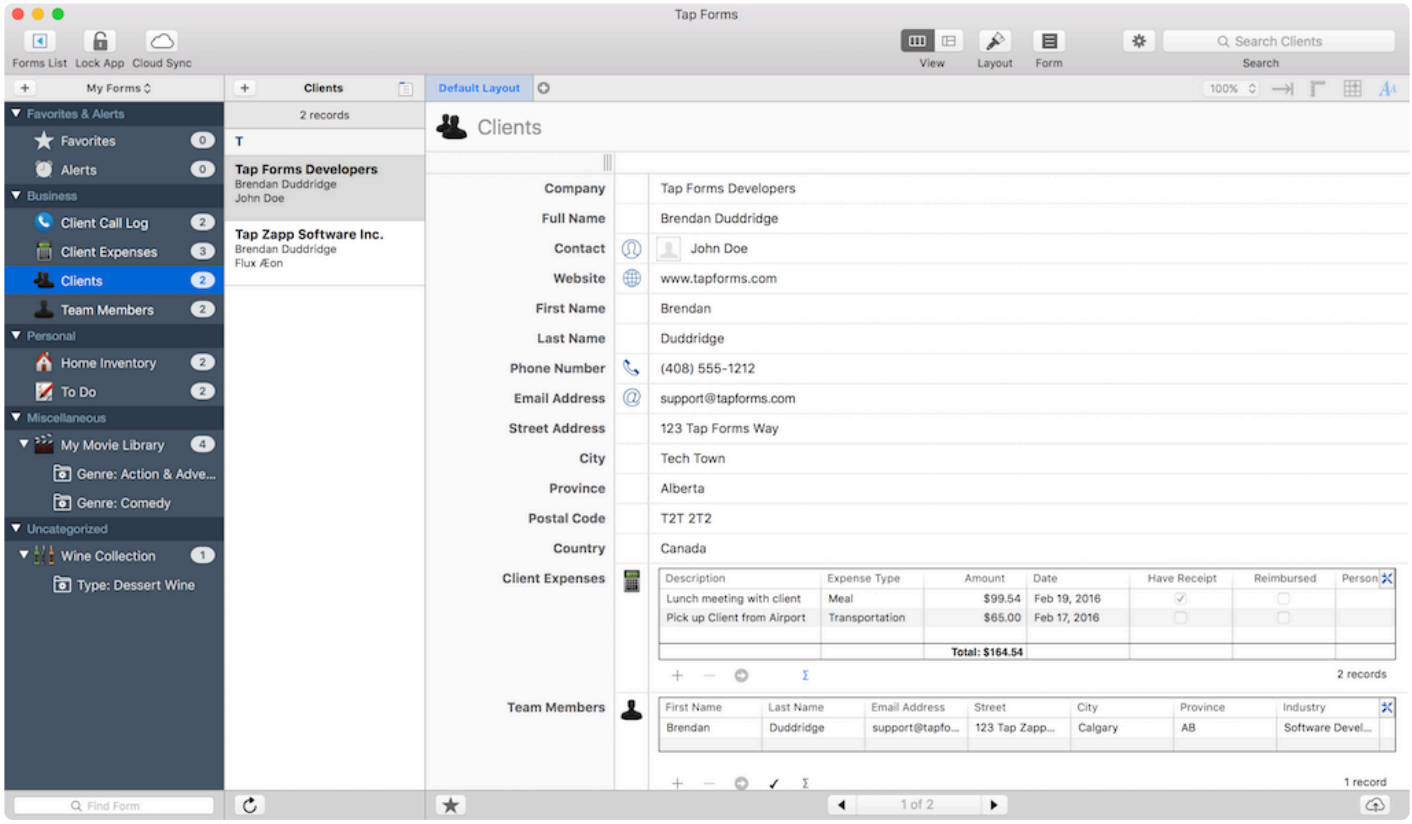

Form
Fields
First Name
Last Name
Phone Number
Email Address
Street Address
City
Province
Postal Code
Country
Client Expenses
Team Members
(drag to rearrange)
Field Name
Client Expenses
Type

Make sure you've selected **One to Many** as the Link Type.

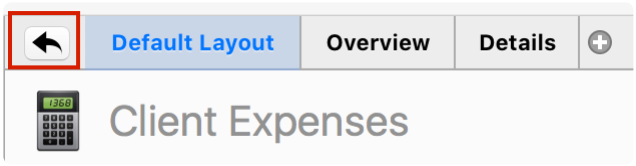
✻ A note about the **Show Inverse Relationship** option. You can enable the Show Inverse Relationship option if you would like Tap Forms to manage both sides of the relationship for you. Enabling the Show Inverse Relationship option will automatically create a **Link From Form** field which will show you which parent record linked to the record you're viewing. In our example that means a Client Expense record will display a field that links back to the Client form so for any selected Client Expense record, you'll easily be able to see which Client it belongs to.

! Don't create your own **Link From Form** field. Tap Forms will create it and set it up properly for you when you enable the **Show Inverse Relationship** option.

Now when you add or edit a record on your Client form, you can see the list of Client Expenses. Initially there will be none, but you can click the + button below the list of Client Expense records to add one. Clicking the + button will add a record inline in the table view. Clicking the +> button will take you to the Client Expenses form where you can fill out the details there. By adding a record from this view Tap Forms will link the new Client Expense record to the parent Client record.



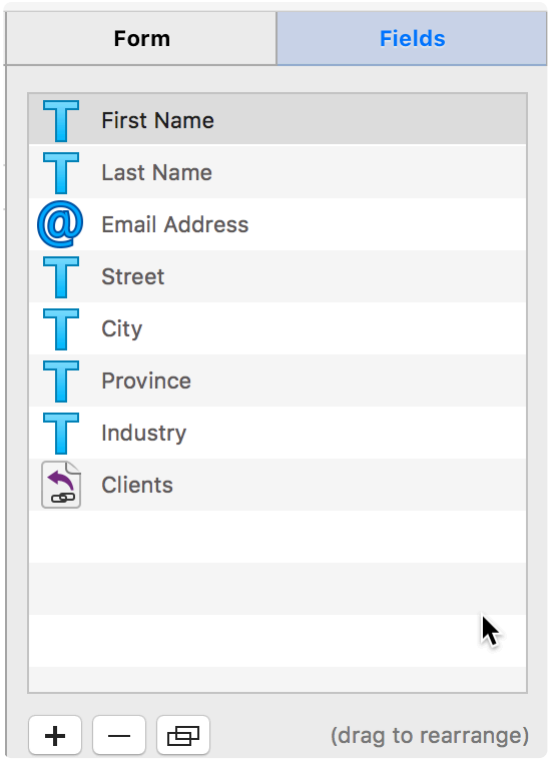
When you add a child record to the parent record form, Tap Forms will switch the display to the child form (in this case Client Expenses) along with a back button which when clicked will return you to the parent record from where you came.



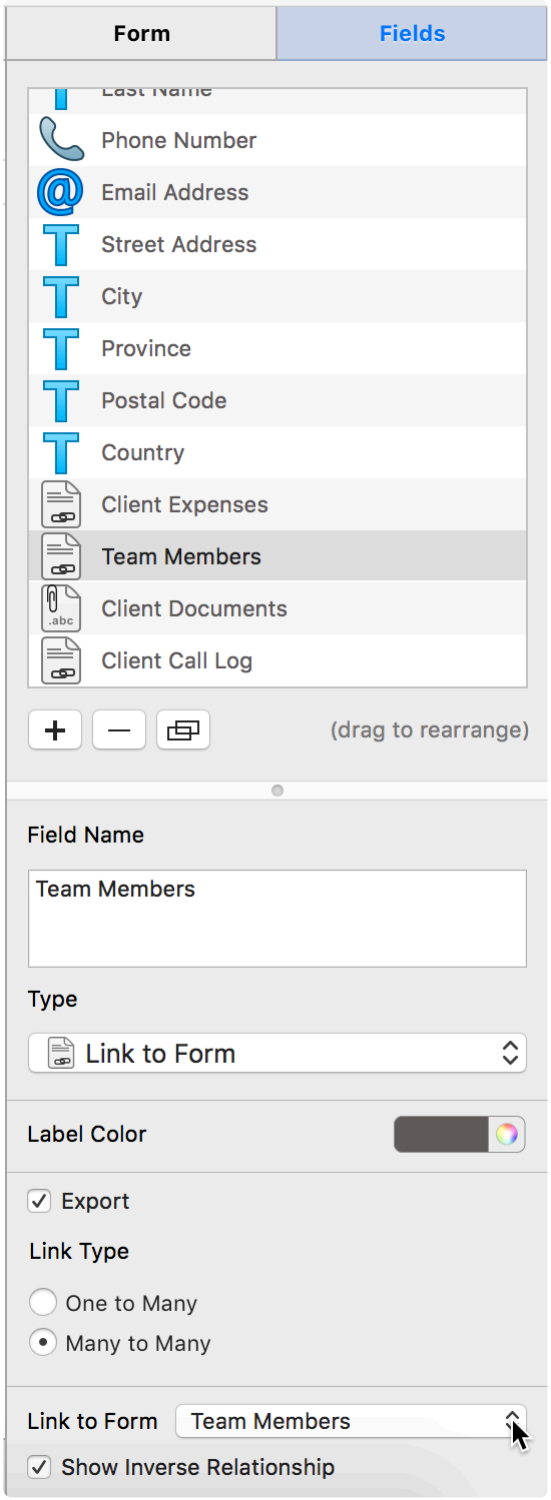
Many to Many

An example of a Many to Many link could be a list of team members who are assigned to projects for the selected Client. A team member can work on multiple projects, so a many-to-many relationship makes sense here. They may work on only one project at a time, but over time they may have worked on various projects, so using a many-to-many relationship allows you to keep that historical information as you look back through old projects.

Add a Team Members form that contains a list of people that work at your company. You could add their name and job title.

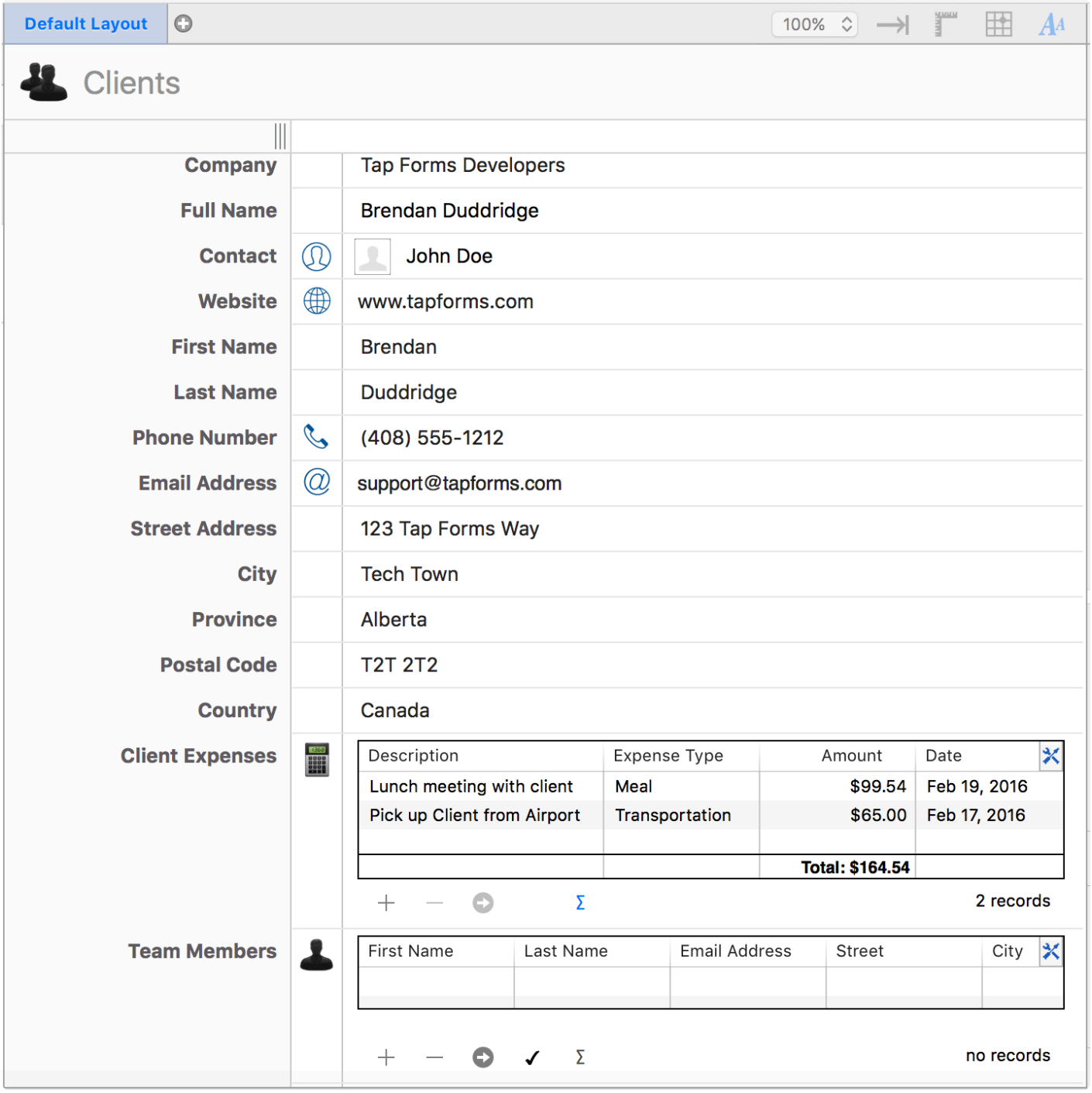


Now add the linked form field to the original Clients form:



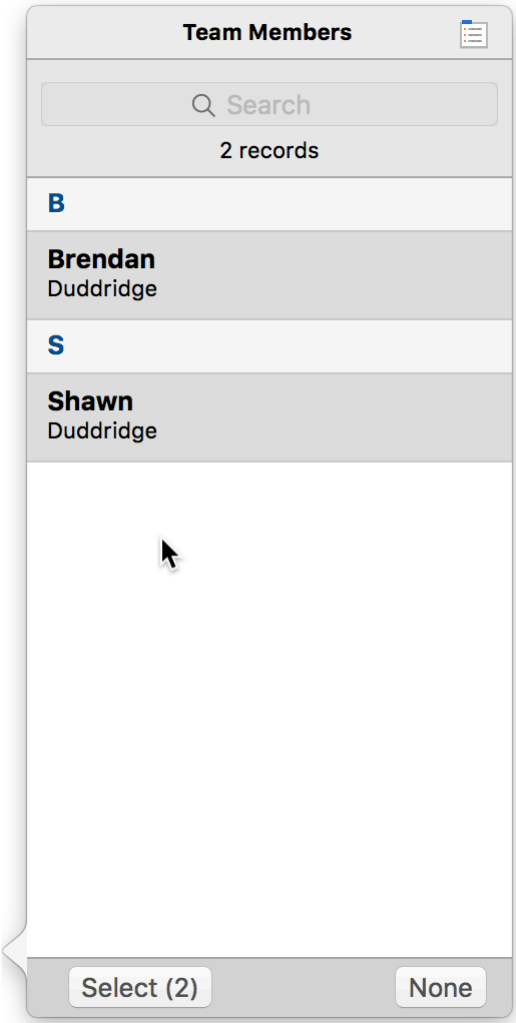
Make sure you click on **Many to Many** for the Link Type and select the Team Members form from the Link to Form property.

Now when you view your Client record the list of Team Members will initially be empty:

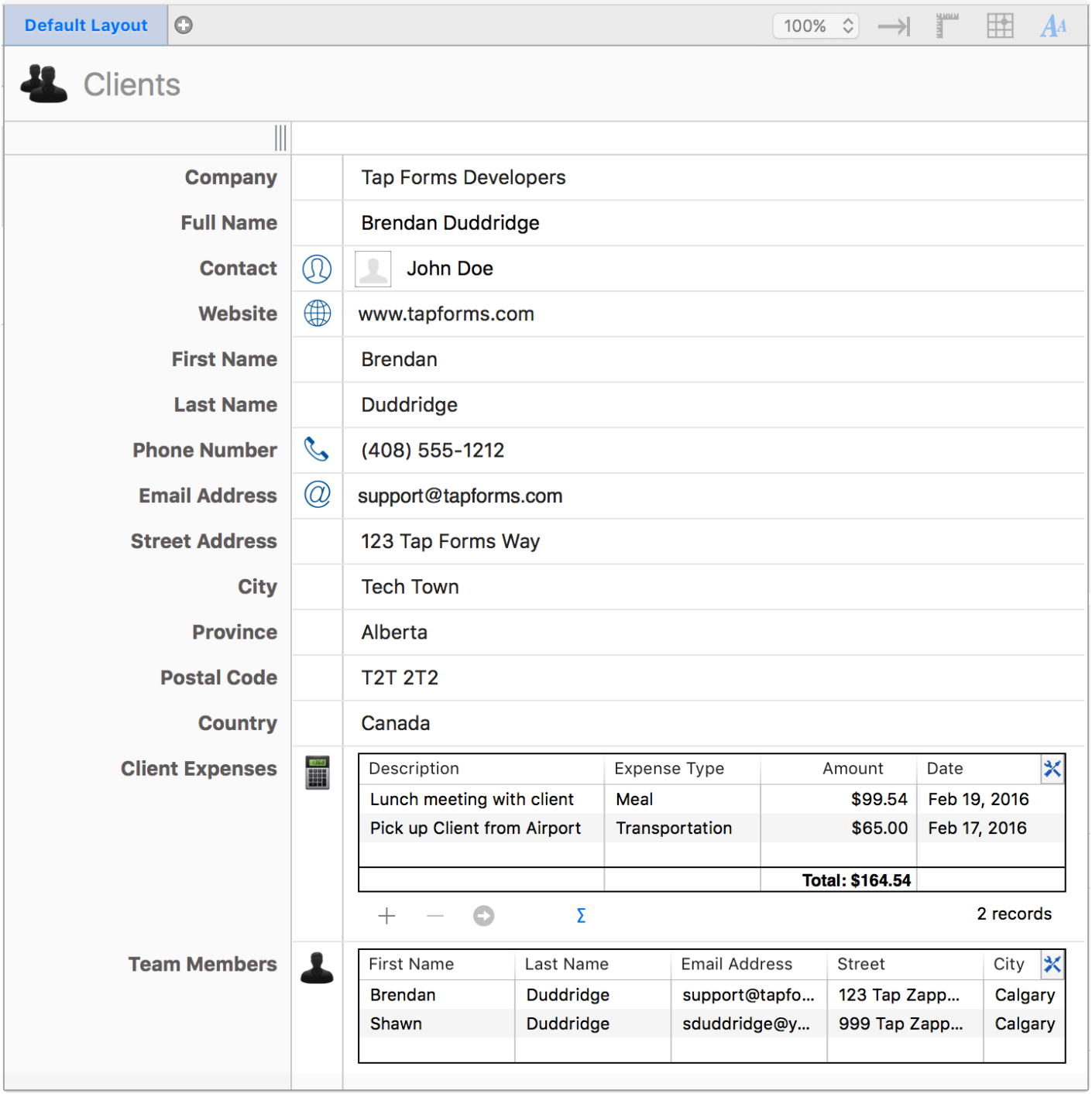


After you've added some Team Members you'll be able to select from the list of Team Members by clicking on the checkmark button just below the linked field.

This will display a popover with a list of child records which haven't yet been linked to your parent record.


Team Members
Search
2 records
B
Brendan
Duddridge
S
Shawn
Duddridge
Select (2)
None

Select one or more records from the popover and then click the Select (#) button.



The list of linked records will update to show the records you've previously selected and the records you've just selected.

And that's the difference between a **One to Many** and a **Many to Many** Link to Form field.

Join

The Join Link Type option allows you to join two forms together based on some criteria that's common

between the parent and child forms. An example might be if you have an Orders form and an Order Items form. The parent Orders form would typically have an Order Number field. The child Order Items form would also have an Order Number field.

The Join Link Type can be used to make a connection between the Orders and the Order Items form by matching the Order Number field from both forms. That means that for any Order record, Tap Forms will display a list of Order Items that match the Order Number field in both the Order and Order Items forms. Currently the matching criteria checks if the values of Text type fields are equal in a case insensitive way.

Last modified: Feb 20, 2019

12. Backup & Restore

Keeping regular backups is critical to the operation of any computer system. This is especially true for an application like Tap Forms because often your most critical day-to-day information is stored there.

Tap Forms offers a simple method to backup your database documents to make sure you are always able to recover if things go wrong or if items are accidentally deleted. It happens.

To backup your documents, on the macOS version you have two options.

1. The Backup command in the File menu.
2. The Backup on Quit function on the General Preferences window.

The Backup Command

This is fairly straight forward. You select the Backup command from the File menu and choose where you'd like to save the backup file. Tap Forms will zip the currently opened document and name it with the current date and time the backup file was made.

Backup on Quit

A handy way of letting Tap Forms backup for you is when you're quitting the app. If you leave a document opened and then quit Tap Forms, the Backup on Quit function will be triggered, creating a backup file in the chosen Backups Folder location. To configure the Backup on Quit function, go to the Preferences window and click on General if it's not already selected. There you can enable the Backup on Quit function set how many backups you'd like to keep, and specify a folder where Tap Forms will save your backup files. It would be a good idea to set that to something such as an iCloud Drive or Dropbox folder. That way when Tap Forms backs up, the backups will then be stored in your selected cloud storage location.

Restore

Restoring is a little more complicated if sync is involved. This is because if you're syncing and you restore your backup file, when sync happens again, whatever things in your document were deleted, will also be deleted again. So to avoid this you must disable sync on every device before you restore.

Here are some steps you can follow if you're syncing using iCloud:

1. Open the document on your Mac and other devices.
2. Disable iCloud sync on each device.
3. Press the Delete from iCloud button on just one device.
4. Close the document on your other devices.
5. On the Mac, re-enable sync.
6. Wait for sync to finish.

7. Close the document on the Mac.
8. Re-open the document on the Mac.
9. Wait for the second sync cycle to complete.
10. Close the document one more time on your Mac.
11. Delete that document from your other devices.
12. Use the Send Document function from the Mac and send it to all your other devices.
13. Open the document on your other devices one at a time.
14. Re-enable sync on the other devices one at a time.

If you're using other sync services such as IBM Cloudant or Apache CouchDB, you must login there and manually delete the database document that matches the Document ID you see on the Sync Settings screen. The Document ID is the "db-….." value you see on the Sync Settings screens in Tap Forms.

To backup on the iOS version

1. Open the document you want to backup.
2. Tap on the Tools tab.
3. Tap on the Backup & Restore function.
4. Tap on the + button to make a new backup file.
5. Tap on the backup file to select it.
6. Tap on the Upload button.
7. Choose a location where you would like to upload your backup file to so its available on other devices.

To restore on the iOS version

1. Open the document you want to backup.
2. Tap on the Tools tab.
3. Tap on the Backup & Restore function.
4. Tap on the Download button.
5. Locate your backup file in your cloud storage service and tap on it to download it to Tap Forms.
6. Tap on the backup file.
7. Tap on the Restore Backup button.

You should also disable sync on the iOS version before you restore to it. And make sure that you restore only to one device and then use the Send Document function to send the restored document around to your other devices.

Last modified: Jul 02, 2020

13. Syncing

Syncing is critical to making sure your data stays safe and functional across all devices. In the “Syncing” topics are explanations on how to sync your data using a slew of methods.

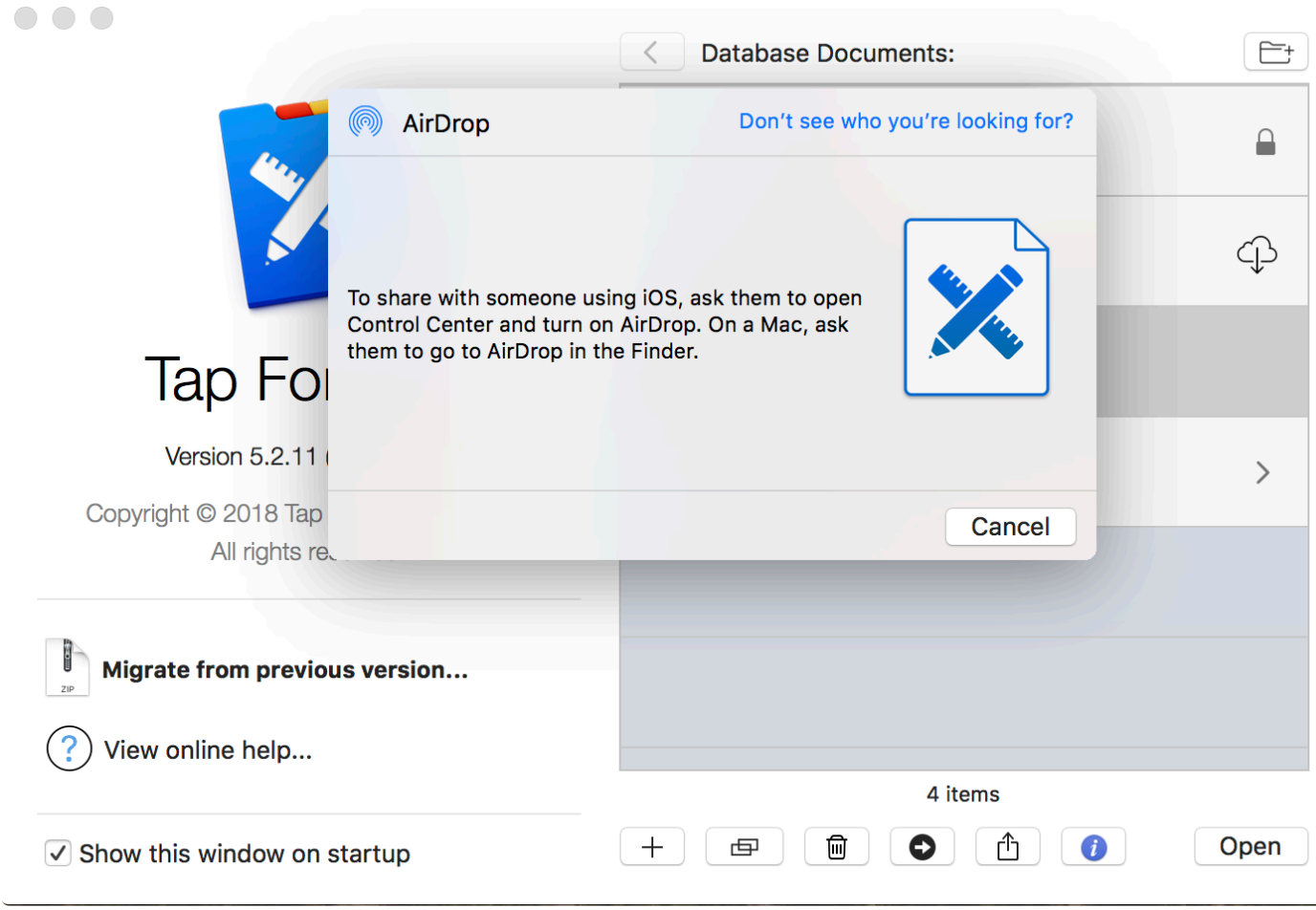
> Before you can sync, use the Send Document function to send a copy of your document to your other devices.

Syncing

- Nearby Sync
- iCloud Sync (requires all devices to be logged in to the same Apple ID)
- IBM Sync
- Apache CouchDB Sync

Last modified: Jan 10, 2020

13.1. Send Document to Another Device



When syncing your database documents between devices, **you must have identical documents on both devices**. After migrating the database on one device, you can send the migrated documents to your other devices via **AirDrop** or **iTunes File Sharing**. This process can take place on both the Mac and iOS.

The simplest way to send files between devices is through AirDrop. Both iOS and Mac have options to AirDrop your documents; to get started, make sure both of your devices are AirDrop compatible, are set up on the same Wi-Fi network, and are within close proximity. After checking these factors, follow the steps below.

Sending with a Mac

1. Launch Tap Forms on both devices.
2. Display the Database Documents window by pressing command-0 (zero) or selecting Database Documents from the Window menu.
3. Click the database document you'd like to share. Do not open the document. If it's already opened, close it first and make sure the main Database Documents window is in the foreground.
4. At the bottom of the window, click the "**Share**"  button. You can also use the **Send Document** command in the File menu.
5. Select the device to which you'd like to send the document. If you don't see your devices listed there, make sure AirDrop is enabled and they are nearby and turned on.

> ! If you have an opened document in Tap Forms for iOS, please close it first. Tap the (v) button at the top-left of the My Forms tab to close it. You should be on the main Documents view.

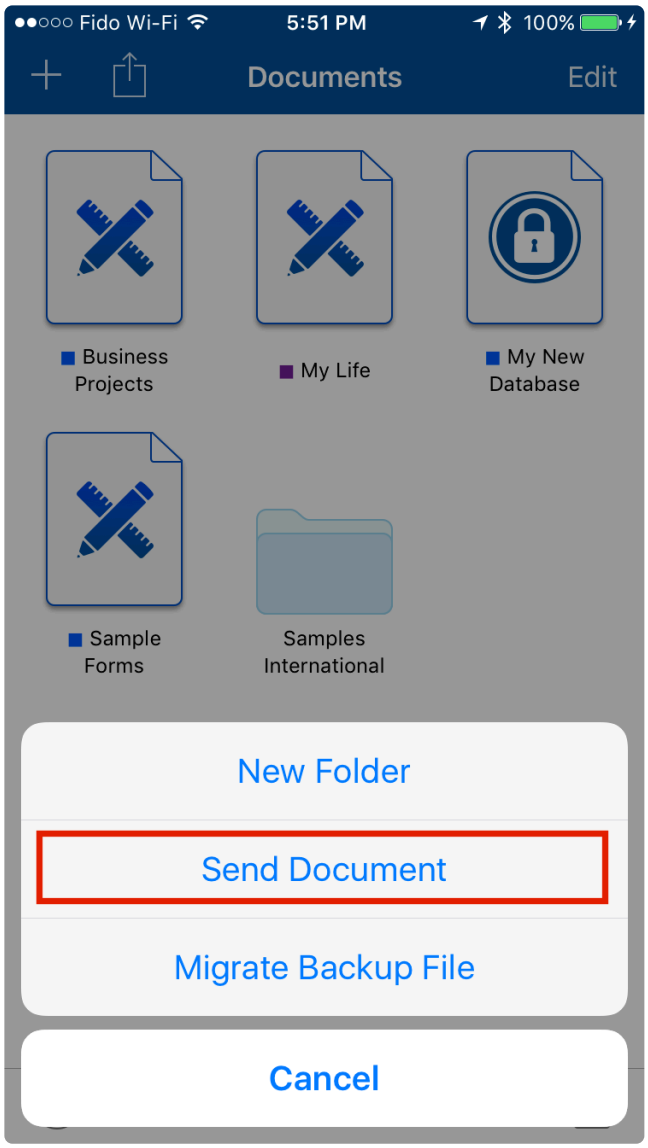
> ! iOS 17 users will see the document appear inside the Files app instead of going directly to Tap Forms after the transfer. You will need to tap on the document if it's not already displayed, then tap on the Share button, then tap on Tap Forms on the share sheet to have the document transferred to Tap Forms. Apple made this change and Tap Forms has no control over that part of the process.

> ✻ If you're sending the document to a Mac, the file will automatically be sent to your Downloads folder in the Finder. Drag it to the main Database Documents window to insert it into Tap Forms. When dragging a Tap Forms document into the Database Documents window, let go of the mouse when you see the blue horizontal line appear in between documents.

Sending with iOS

1. Launch Tap Forms on both devices.
2. Tap the action menu button at the top left of the screen (next to the "+").

3. Tap “**Send Document**”.
4. Choose the file you want to share.
5. Locate the device in the AirDrop section and tap on it to send it over.



On iOS, you can also share your document by means other than AirDrop, like Messages, Mail, etc.

iTunes File Sharing

If your devices aren’t compatible with AirDrop or you’d prefer an alternative method, you can also use iTunes File Sharing to send a file between iOS and Mac.

1. Launch iTunes and plug your device into your Mac
2. Click on your device in iTunes

3. Find the iTunes File Sharing area. In recent versions of iTunes, there's a separate File Sharing area. However, on older versions of iTunes, you have to navigate into the Apps area and then scroll all the way down until you see the File Sharing area.
4. Scroll down to find Tap Forms in the list of apps and click on it.
5. You will see the Tap Forms Documents area appear on the right.

6. Drag a .tapforms document file from your Mac into the Tap Forms Documents area on the right in iTunes.
7. If you're wanting to copy from an iOS device to your Mac, drag the file from iTunes to your Mac.

> ✻ If you select a file in iTunes, pressing the Delete key on your Mac's keyboard will delete it from your iOS device.

Now that you have the same document on each device, you may now proceed to setting up either Nearby or Cloud syncing.

Last modified: Jan 23, 2024

13.2. Nearby Sync

Nearby Sync uses your own local area network (either WiFi or hard wired) to sync a document to that same document on your other devices. Your data does not travel over the Internet in order to accomplish this. It stays on your own local area network which means that it does not require a cloud service to function.

However, all devices must be attached to the same network to it to function. Also, if your Mac has its firewall enabled, you must allow Tap Forms to accept incoming connections or Nearby Sync will not function.

> ✻ Before you can sync, you must have a copy of the same document open on each of your devices. Use the **Send Document** function to transfer a copy of your document from one device to another. See the Send Document to Another Device topic for instructions.

To configure synchronization with nearby devices via Wi-Fi:

1. Open the same database document on each device you want to sync with.
2. Under the Tap Forms menu, select Preferences.
3. Click **Sync**.
4. Click **Nearby**.
5. If the device isn't listed, click the + button.
6. Select the device. You will see a green dot appear next to the device you added.
7. Click **Done**.

Do the same on all of your devices so that Tap Forms on each device is connected to each other. You will need to do this with every database document that you want to sync with each of your other devices.

It's also possible to have some devices syncing one document and other devices syncing other documents. For example, you may want to sync your private information with just your devices, but sync your shared information with a family member or co-worker with one or more of their devices.

> ✻ Each device must be on and have the same database document open at the same time in order for Nearby sync to function. The moment you make a change on one device, synchronization will begin on all your devices.

> ✻ If a device doesn't show up, check the length of your device names. They should be no more than 25 characters. For example, if a device was called "Brendan Duddridge's iPhone 6 Plus", that would be 33 characters. This will cause the device not to show up in the list even if it has the same document open. This is due to a networking issue where devices on the network can't have names longer than 63 characters. Tap Forms prefixes the device name with the document ID which is already 35 characters, plus an @ character.

Last modified: Feb 20, 2019

13.3. iCloud Sync

Tap Forms 5 supports syncing your database documents via Apple's iCloud servers.

Before you can sync with iCloud, you must:

1. Be logged into your iCloud account.
2. Have iCloud Drive enabled.

To setup iCloud sync on Mac:

1. Create a new document or open an existing one
2. Click Preferences under the Tap Forms Mac menu
3. Click Sync
4. Select iCloud from the list of sync services
5. Click the Enable iCloud Sync button

To setup iCloud sync on iOS:

1. Create a new document or open an existing one.
2. Tap the Tools tab at the bottom-right of the screen.
3. Tap Sync Settings.
4. Tap iCloud on the buttons at the top. It's the first button with the little i in it.
5. Tap the Enable iCloud Sync button

Tap Forms will then upload the forms and records in your document to iCloud. You should see messages appear at the bottom of the window on the Mac version indicating when Tap Forms is sending and receiving. The iOS version will display sync messages on the Tools screen. Tap Forms will also generate an empty document placeholder on your other devices that are connected to the same iCloud account. You'll see a cloud icon with a down arrow in it.

Wait for Tap Forms to finish uploading to iCloud before you proceed.

When you open the placeholder document on your other device, after a few moments, Tap Forms will download from iCloud and all your data for that document will be synced. If for some reason not all the data comes down, I would recommend using the Send Document function to send a copy of the document you just synced over to your other devices. If the same document already appears there, remove it first, then use the Send Document function to send it over from the device that has all the data. That way you ensure an exact copy of the document is on all your devices.

If you don't see the placeholder document appear on your other devices, try rebooting your device. Occasionally, the notifications that iCloud sends don't get delivered to Tap Forms, so it doesn't know about the new document. Rebooting may help this.

There is also a "Delete from iCloud" button. This button allows you to delete the contents of the document from your iCloud account, helping to free up your iCloud storage space should you no longer wish to sync that document. Deleting the document from iCloud will not delete it from your local drive. It can be handy occasionally to delete the document from iCloud and then re-enable sync to have Tap Forms re-upload the

entire document.

When Tap Forms is downloading data from iCloud, it does so in batches of 200 items. It repeats this over and over again until it's done. Please let it finish. The first sync usually takes the longest and it depends on how much data you're syncing.

If iCloud doesn't automatically update on your iOS device when a change is made on another device, go to `Settings > General > Background App Refresh` and make sure that Tap Forms is enabled for Background App Refresh.

Last modified: Sep 08, 2020

13.4. IBM Cloud

IBM has recently updated their Cloudant service to require customers to create a new IBM Cloud account. If you already have an old Cloudant account, you must create a new account on the new IBM Cloud service, and then set up the sync again using the new service. You don't need to follow the instructions they gave you for migrating your data to the new account. You only need to sign-out of Cloudant within Tap Forms, then sign-in again using the new credentials you'll be given once you follow the instructions here.

IBM has also now changed the domain they use for the address field, so I recommend using the Apache CouchDB login in Tap Forms instead of the Cloudant login screen and pasting in the **host** value from the service credentials into the Server Address field in Tap Forms.

Also please note that IBM has implemented an 11 Megabyte request size limit for syncing with their service. This means if you have content, photos and file attachments in your records that add up to more than 11 MB, IBM will respond with a **"request entity is too large"** error during syncing. Tap Forms for Mac will display the record which causes the error to happen so you can take appropriate action to remove the image or attachment causing the error. Please contact support@cloudant.com if you receive this error message. If this becomes a problem for you, you will need to switch to iCloud, Nearby, or Apache CouchDB syncing instead. IBM has recently increased the limit from their previous 1 MB. Specific details are here: https://console.bluemix.net/docs/services/Cloudant/offerings/bluemix.html#request-and-document-size-limits

For instructions on syncing with nearby devices over Wi-Fi, see the "Nearby Sync" topic. For instructions on syncing with iCloud, see the "iCloud Sync" chapter. For instructions on setting up your own Apache CouchDB sync server, see "Apache CouchDB Sync".

IBM Cloud syncing is very useful if you want to sync with someone who does not share the same Apple ID as you on their devices.

> Before you can sync, you must have a copy of the same document on each of your devices. Use the Send Document function to transfer a copy of your document from one device to another. On Mac, click on the Share button at the bottom of the main Documents window. On iOS, tap on the share button at the top of the main Documents view and select “Send Document”. Once you have the same document open on each device, then you can setup sync between them. Tap Forms must be running on each device and have the main Documents view visible in order for the transfer to take place. See the “Sharing with Another Device” topic for more information.

Here are the steps you need to do to create an IBM Cloud account and to add Cloudant as a service into your account. You’ll need to do this first before you setup Tap Forms with your username and password given to you by IBM Cloud now.

Visit https://cloud.ibm.com/catalog/services/cloudant to create your account.

1. Scroll down to Pricing Plans.
2. Select a pricing plan. Try the free Lite service first to see if that works for you. If your storage requirements are higher than 1 GB, then you may need to select the Standard plan, but there will be a fee for that. If you’re not comfortable with that, you can certainly use one of the other built-in sync solutions in Tap Forms.
3. Click on the blue `Sign Up to Create` button on the right.
4. In the `Email` field, enter your email address, and then press the tab key.
5. Enter your remaining details including a password that you will use to login to your IBM account on their website. You will not be asked to type your password in again. Please remember it. Also please note this is NOT the same password you use to Sign In to Cloudant within Tap Forms. That will be issued to you later on.
6. Click the `Create Account` button. You will be asked to check your email to verify your email address.
7. Look for an email in your email account titled: `Action required: Confirm your IBM Cloud account`.
8. Click the blue `Confirm Account` button.
9. You should see a Success! screen.
10. Click the Login button to proceed.
11. Enter your login email address and password when prompted.
12. View the welcome splash screen and click the Next button or click the X button to close it.
13. You should see the Cloudant NoSQL page.
14. Click the blue `Create Resource` button on the page.
15. If you have the choice of `Available authentication methods`, you MUST choose the `Use both legacy credentials and IAM`. If you don’t choose that option, you won’t get a username and password from the next step.
16. Click `Service credentials` on the left where it says Manage, Service Credentials, Plan and

Connections.
17. Click the blue `New Credential` button on the right.
18. Accept the default name and then click the blue `Add` button.
19. Click the dropdown arrow next to `View Credentials` and copy the `username` and `password` values. These are the `user name` and `password` values you will need to enter into Tap Forms in the next step. For example, a username is similar to this: `username: 7891234-qll3-lk92-woiu4-da0d345tg7b5-bluemix`.
20. Copy the `username` and `password` values EXCLUDING the double-quotes.
21. Now click `Manage` at the top-left side of the page.
22. Click the `Launch` button if you wish to view your Cloudant dashboard. This is where you can see your databases that you're syncing with Tap Forms once you've signed in to your IBM Cloud account within Tap Forms.

Once you have your own IBM Cloud Cloudant service setup, you need to return to Tap Forms on each of your devices that are being synced and go through the following steps:

1. Open the database document you would like to sync.
2. Under the Tap Forms menu, select Preferences. On iOS, go to the Tools area then tap on Sync Settings.
3. Click `Sync`.
4. Click `Cloudant`.
5. Copy the `username` value given to you from the `Service Credentials` in your IBM Cloud account.
6. Paste the `username` value given to you into the Tap Forms `Username` field. When you paste in your username, the server address will automatically be entered for you.
7. Copy the `password` value given to you from the `Service Credentials` in your IBM Cloud account and paste it into the `Password` field in Tap Forms.
8. Enable Auto-Sync if you wish to have Tap Forms sync your data automatically.
9. Click the `Sign In` button when you're done.

Auto-Sync

If you enable Auto-Sync, Tap Forms will sync with Cloudant automatically whenever you make changes. Any other device which is also running Tap Forms at that time will receive any changes you've made a few moments later. If no other devices are running Tap Forms at that moment, the next time you launch Tap Forms on those other devices, they will check Cloudant for any changes and will sync. If they have changes that have not yet been synced to Cloudant, those changes will also be automatically synced.

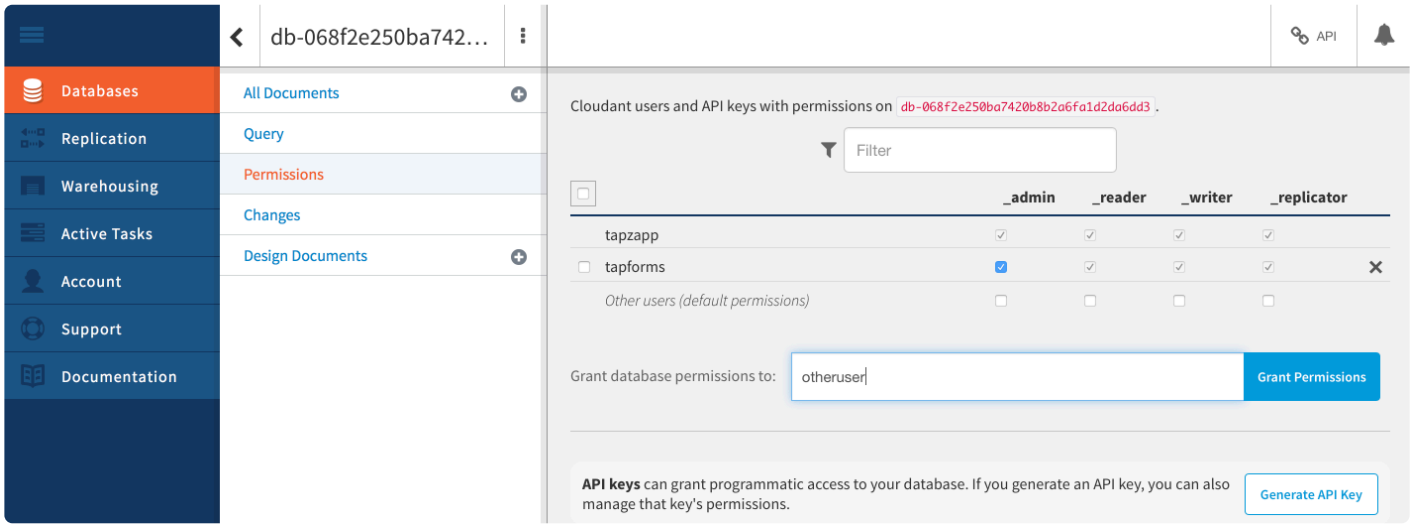
> Auto-Sync is a great way to make sure you are always accessing the current data regardless of the device. However, this function may not be suitable for multi-user synchronization, as all users will be interrupted briefly while Tap Forms synchronizes the changes.

If you're not using Auto-Sync, select the **Sync Now** command from the **File** menu whenever you want to

sync your document.

Database Sharing

Cloudant has the ability to let you share a database with another Cloudant user. Tap Forms supports this via the **Shared by user** setting on the cloud Sync Settings screen. Once you've setup database sharing and granted the other Cloudant user access to your database, the other user will need to enter your username into the **Shared by user** setting in Tap Forms. They also need to enter their own username and password into the appropriate fields. Once they've done this, any changes they make to their copy of the database will be synced with your copy of the database and vice versa.



Please note: Tap Zapp Software Inc. has no access to your data. Your data is stored and managed solely by IBM Cloudant. Please see IBM's Privacy Policy here: http://www.ibm.com/privacy/details/us/en/

Last modified: Jan 20, 2022

13.5. Apache CouchDB Sync

This is an advanced topic which describes how to install and setup your own CouchDB server. Running your own CouchDB server will allow you to have your own sync solution within your own network without incurring the limitations of Nearby sync. You won't have to have the same document opened at the same time for sync to function. All changes made on all your devices will be stored in your Apache CouchDB server. The primary audience for this sync solution is anyone who doesn't want their data to be stored on a server outside their home or office location.

What is Apache CouchDB?

Apache CouchDB is a free, open-source database server which employs the same Couch Replication Protocol that Tap Forms uses to sync with IBM Cloudant. This means that Tap Forms is able to sync with your own server hosted in your own home or office without incurring the expense of an outside cloud based sync service.

Where can I get CouchDB?

Apache CouchDB can be downloaded from the following location:

http://couchdb.apache.org

Installing CouchDB

This topic will guide you through installing and setting up Apache CouchDB on a Mac. For other platforms, see the Apache CouchDB website for help.

1. On the Apache CouchDB website, click the Download button at the top of the page.
2. Click on the button to download CouchDB for **Mac OS X (10.10+)**
3. In the Finder, double-click on the Apache-CouchDB ZIP file to uncompress it.
4. Drag the **Apache CouchDB.app** file into your **Applications** folder.

Setup

1. Run the Apache CouchDB application.
2. Open up the CouchDB admin web page. It should launch your web browser and take you to the admin page automatically. You may recognize it because it looks very similar to the IBM Cloudant Dashboard. If it doesn't launch, you can select `Open Admin Console` from the CouchDB menu that will display in your menubar.
3. Verify the install by clicking on Verify, then Verify Installation. You should see checkmarks next to each entry.
4. Click on `Admin Party!` then create an admin account.
5. Click the `Create Admins` button to do that. Then give the admin a username and password.
6. Click the `Save` button when done.

> If you see an entry for **bind address**, make sure it's set to 0.0.0.0 or else you won't be able to connect to it from other devices.

> Only admins can create databases. Because only admins can create databases, if you try to

> sign in with a regular user account and the database hasn't been created in CouchDB yet, Tap Forms will display an error indicating the database does not exist. You can temporarily sign in as an admin to create the database or you can use the CouchDB admin console to create a database with a matching ID number you see on the Sync Settings screen in Tap Forms. You'll know the ID number when you see it since it starts with "db-" and has a bunch of random letters and numbers after it. Copy that to the clipboard and paste it into the CouchDB admin console when creating your database.

To create non-admin regular users

It's not as straightforward to create a regular user with CouchDB. We're not sure why they don't have a proper interface for creating regular users, but it's simple enough when you know how.

1. Click on the `Databases` button in the CouchDB admin page.
2. Click on the `_users` database. If the `_users` database does not exist yet, make sure you went through the Setup process first.
3. Click the `(+)` button and then select the **New doc** function. A new record will be created in the _users table for you with a default value.
4. Remove the default value.
5. Copy and paste in the following code (including the curly braces) into the record.
6. Replace `username` in both spots with the username you want to create. Don't use any special characters in the username. Just letters and numbers. No spaces or punctuation.
7. Replace `plaintext_password` with a proper password.

```
{
    "_id": "org.couchdb.user:username",
    "name": "username",
    "type": "user",
    "roles": [],
    "password": "plaintext_password"
}
```

8. Click the `Create Document` button when you're done. The password will automatically be encoded into a more secure `derived_key` and `salt` format when the document is created. This means anyone looking at the `_users` database will not be able to tell what the password is.

Configure CouchDB for Single Node Setup

CouchDB can be used in a single-node and cluster setup configuration. A single-node CouchDB installation is what most users will be using. For more advanced setups, consult the online documentation at https://docs.couchdb.org/en/stable/

1. Click the `Setup` button. You will be asked to set up CouchDB as a single-node instance or set up a cluster.
2. Click the `Single-Node-Setup` button. You will be asked for an admin username and password. Choose them well and remember them. You can also bind CouchDB to a public port, so it is accessible within your LAN or to the public.

Once you've done this you will be able to connect to your new CouchDB server from within Tap Forms running on other devices.

Setup Tap Forms 5 for Mac

1. Launch Tap Forms and open the document you want to sync.
2. Click `Preferences` under the Tap Forms menu.
3. Click the `Sync` tab.
4. Click the `Cloudant & CouchDB` button.
5. Click the `Service Provider` popup button and choose `Apache CouchDB`.
6. Enter the IP address of your CouchDB server in this format: `http://127.0.0.1:5984`. If you're running your server on the same computer that Tap Forms is running on, use the IP address `127.0.0.1`. Don't forget to add a `:` followed by the port number `5984` after the IP address. If your CouchDB database is on a different server, then use that server's IP address instead.

> ! You will need to use `http` instead of `https` if you're connecting to an IP address. If you would prefer to connect to a named server, for example `https://couchdb.mycompany.com:6984` then you'll need to make sure you use `https` and you have the appropriate SSL secure certificate installed on that server. The default port number for https connections is `6984`. By using an IP address instead of a named server, you can avoid needing to setup an SSL certificate. However, syncing between Tap Forms and your CouchDB server will NOT be secure. It's preferable to setup the appropriate SSL certificates on your CouchDB server so you can sync securely.

7. Click on the `Auto-Sync` checkbox to enable automatic syncing.
8. Click the `Sign In` button to sign-in to your new CouchDB server. The sync process will now begin.

Setup Tap Forms 5 for iOS (for local area network syncing only)

1. Launch Tap Forms on your iOS device and open the document you want to sync.
2. Tap the `Tools` tab.
3. Tap the `Sync Settings` function.
4. Tap the far right `Cloud` button.
5. Tap `CouchDB` next to the Cloud Service option.
6. Tap the Server field and enter the IP address of your CouchDB server in this format: `htt`

`p://0.0.0.0:5984`. Replace the `0.0.0.0` with the actual IP address of your own CouchDB server. Don't forget to add a `:` followed by the port number `5984` after the IP address.

7. Tap Auto-Sync to enable the Auto-Sync function.
8. Tap the `Sign In` button to sign-in to your database. The sync process will now begin.

Your Mac and iOS devices should now be syncing to your CouchDB server. There's nothing more you need to do.

Optional, but highly recommended: Configure CouchDB to accept SSL secure connections

Configuring CouchDB to use SSL connections is more complicated. See the following page in the CouchDB documentation for more information:

[How Do I Configure SSL (HTTPS) in CouchDB?]

If you're running your own CouchDB server on your own network or even on the same Mac you run Tap Forms on, then you can generate a Self Signed SSL Certificate to enable secure connections to the CouchDB server. However, to be truly secure you should obtain an SSL certificate from a valid Certificate Authority.

Here's how you generate a Self Signed Certificate:

1. Launch the Terminal application
2. Generate a private key by copying and pasting the following line into the Terminal application window. Press the Return key after every line you copy and paste.

```
openssl genrsa -out couchdb.key 2048
```

3. Generate a certificate signing request

```
openssl req -new -key couchdb.key -out couchdb.csr
```

4. After the above command is entered, your Mac will ask you a series of questions. Here's an example:

```
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
```

```
Country Name (2 letter code) [AU]: CA
State or Province Name (full name) [Some-State]: Alberta
Locality Name (e.g., city) []: Calgary
Organization Name (e.g., company) [Internet Widgits Pty Ltd]: Tap Zapp Software I
nc.
Organizational Unit Name (eg, section) []:
Common Name (e.g. server FQDN or YOUR name) []: voyager.local
Email Address []:
Please enter the following 'extra' attributes
to be sent with your certificate request
A challenge password []:
An optional company name []:
```

The most important part of the above questions is the `Common Name` value. Since my computer is called `Voyager`, I put in `voyager.local` for the `Common Name` setting. You can find out what your computer name is by launching the `System Preferences` application and clicking on the `Sharing` preferences panel button. The value you're looking for is right beneath the `Computer Name` setting where it says **Computers on your local network can access your computer at: Voyager.local**

5. Create the self signed certificate using this shell script:

```
#!/bin/bash
# Set abort on error and trace.
set -e
set -x
# Use short hostname and append '.local' to get name
# Change this if you want to use another hostname.
HOSTNAME=$(hostname -s).local
# Delete CouchDB files
rm -rf couchdb*
# Create new key
openssl genrsa -out couchdb.key 2048
# Create new CSR
COUNTRY="Your Country Code e.g. US, CA, DE, etc."
STATE="Your State"
CITY="Your City"
ORGNAME="Your Organization Name"
openssl req -new -key couchdb.key -out couchdb.csr  -subj "/C=$COUNTRY/ST=$STATE/
L=$CITY/O=$ORGNAME/CN=$HOSTNAME"
# Create new cert
openssl x509 -req -sha256 -days 735 -in couchdb.csr -out couchdb.crt -signkey cou
chdb.key -extfile <(printf "extendedKeyUsage = serverAuth \n subjectAltName=DN
S:$HOSTNAME \n basicConstraints = CA:TRUE")
```

Set the COUNTRY, STATE, CITY, and ORGNAME variables to your own information.

6. Copy the `couchdb.key` and `couchdb.crt` files to a location where CouchDB can find them.

Configure settings in CouchDB

1. Back in the CouchDB admin webpage (Fauxton) on your computer, click the `Configuration` button.
2. Click the `Add Option` button.
3. Enter in the following options:

Section	ssl
Name	cert_file
Value	/Path/to/couchdb.crt

Section	ssl
Name	key_file
Value	/Path/to/couchdb.key

I found that when following the above instructions, I had to add a couple of more settings to prevent CouchDB from failing to startup after I edited the configuration.

Section	ssl
Name	ciphers
Value	undefined

Section	ssl
Name	secure_renegotiate
Value	undefined

Section	ssl
Name	tls_versions
Value	undefined

Optional settings to protect access to some basic functions that return information about your CouchDB installation, such as the list of database names.

Section	chttpd
Name	require_valid_user
Value	true

Section	couch_httpd_auth
Name	require_valid_user
Value	true

> ! You will not be able to logout of the admin console when you add the above setting because your browser will log you in again if it remembers the username and password.

There may be more appropriate values, but this worked for me.

The last setting must be added inside the following file (for CouchDB 2.1.1):

`/Users/[your username]/Library/Preferences/couchdb2-local.ini`

```
[daemons]
httpsd = {chttpd, start_link, [https]}
```

> ✻ If CouchDB gets stuck trying to launch over and over again, you can find the configuration file in this location on your drive and delete it:
> `/Users/[your username]/Library/Preferences/couchdb2-local.ini`
> You will need to quit CouchDB first before you delete that file. Click the CouchDB menu in the menubar and select the `Quit Apache CouchDB` command.

Once you've got your SSL certificate and key all setup and configured, you can use the name of your machine instead of the IP address inside Tap Forms. For the above example, I would use `https://voyager.local:6984` to connect because Voyager is the name of my MacBook Pro.

> ✻ Please note that to connect to a CouchDB over SSL, you need to use port number `6984`. Although you can actually change that in the configuration in the CouchDB admin interface.

To connect from iOS to your CouchDB server over SSL

Before you can connect to your CouchDB server using the name of your server (e.g. `https://voyager.l`

ocal:6984), you must first install the couchdb.crt file on your iOS device.

To install the SSL certificate on your iOS devices:

1. Email the couchdb.crt file from your Mac to your iOS devices.
2. Tap on it in the Apple Mail app.
3. The Settings app will launch and you will be taken to the Install Profile screen.
4. Follow all the prompts to install the certificate on your device. There's lots of taps. You may be asked to enter your device password at some point.
5. Go to Settings > General > About > Certificate Trust Settings.
6. Tap on Enable Full Trust For Root Certificates to enable it for your certificate.

The certificate will show up in the Settings app under General > Profiles. You may have other profiles there, but the one for your CouchDB server that's using a self signed SSL certificate will have the name of your server. In my case that's voyager.local.

Now you can use https://voyager.local:6984 for the server name on the Apache CouchDB sync settings screen in Tap Forms 5. Use your own server name of course.

To connect from another Mac to your CouchDB server using SSL

1. Copy the couchdb.crt file to all your Macs.
2. Double-click on the couchdb.crt file in the Finder. It will launch The Keychain Access application and install it there for you.
3. Double-click on your certificate in the Keychain Access application. A window with the certificate information will appear.
4. Click on the triangle at the top to expand the Trust section.
5. Select the Always Trust option next to When using this certificate.

To connect to your CouchDB server from the Internet

The above instructions help you to install and connect to a CouchDB server running on a Mac in your local network. If you want to be able to connect to your CouchDB server from the Internet, you'll need to do a few things.

1. Open a hole in your firewall to allow traffic on port 6984 to be routed to your Mac running Apache CouchDB. How you do this will vary depending on what kind of Internet router you have.
2. Create a new SSL Certificate so it uses a fully qualified domain name. E.g. couchdb.yourcompany.com. You can either generate another self signed certificate or purchase an SSL certificate from a trusted authority, such as GoDaddy.
3. Configure a DNS service to resolve couchdb.yourcompany.com to the IP address of your network. If you have a dynamic IP address provided by your ISP, you can use a free service like

http://freeddns.noip.com

4. Configure Tap Forms to connect to `https://couchdb.yourcompany.com:6984` (use whatever DNS name you've given your server).

> ! If you want to use the same server address when connecting to CouchDB on both the inside and outside of your local area network, you'll need to configure a DNS server on your local network to return the local IP address of your CouchDB server (e.g. 192.168.0.5). This is very useful if you use MacBooks and iOS devices both inside and outside of your local area network. Your Macs and iOS devices will also have to be configured to use your local network's DNS servers.

Last modified: Nov 26, 2021

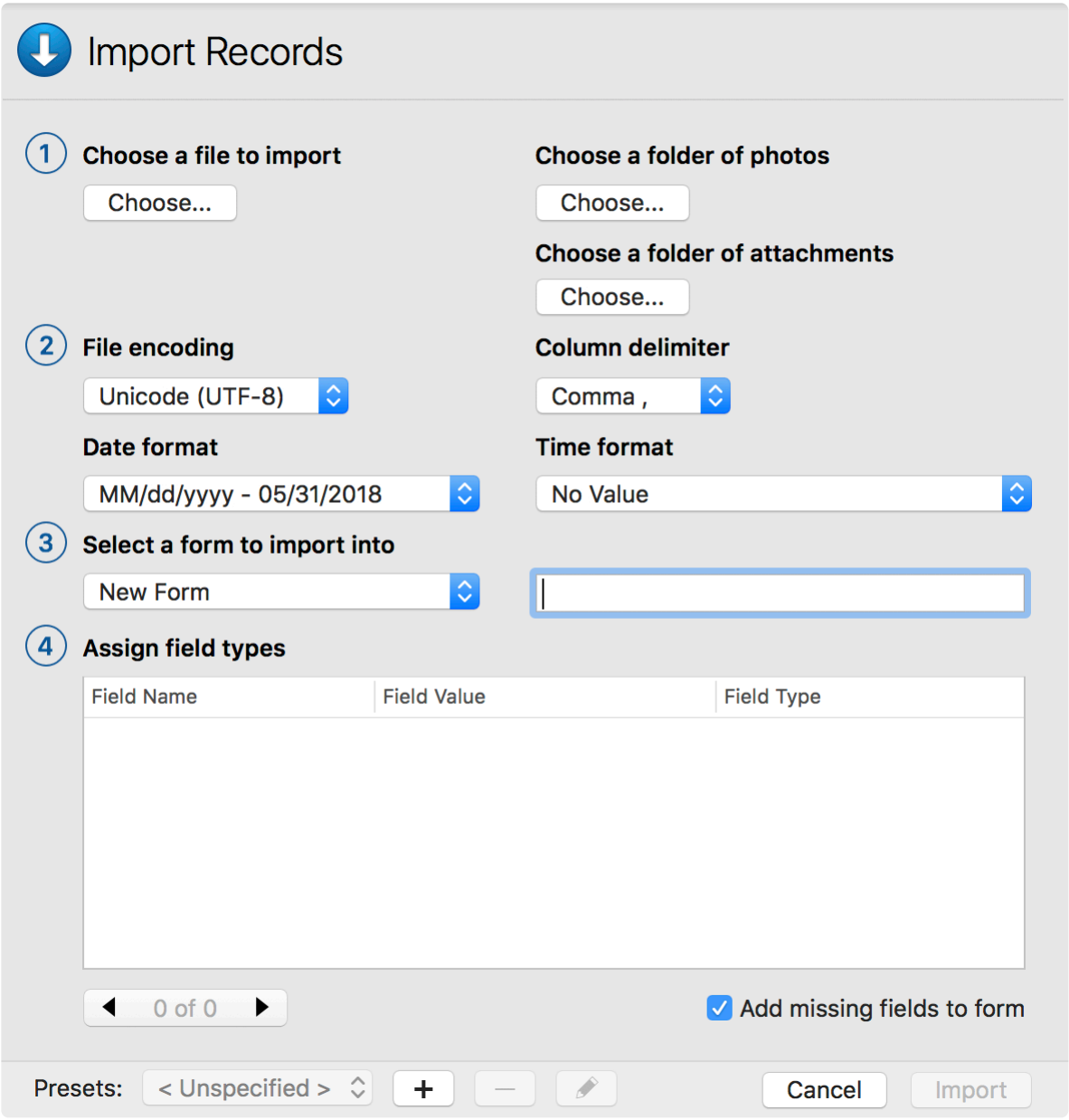
14. Importing and Exporting

Much of the information you input into Tap Forms can be imported and exported using the tools provided within the app. Additionally, Tap Forms offers integration with Bento, also outlined in this set of topics.

Importing and Exporting

Last modified: Jun 07, 2018

14.1. Importing



Rather than recreating data you've already stored elsewhere, Tap Forms allows for simple **importing** via Tap Forms Archive, Form Template, Records, Bento Template, or Contacts. Found under File, importing can help you quickly develop your forms, add hard-to-copy data, and streamline your workflow.

In this topic, we'll cover how to import **records** into your database documents, and it all starts with a **CSV** or **Excel XLSX** file. By importing one of these file types, Tap Forms can understand the data within the file and convert them into records with field data. Utilizing the top row of your file as the field types, Tap Forms can seamlessly integrate your fields into a new form.

If the Import Records option is greyed out, please make sure you have a document already

opened and that document is in the foreground.

If you choose an existing form to import your records into, you must make sure that the first row values match the field names exactly as you have them named in your form. Otherwise Tap Forms will create a new field for every value in the first row which does not match a field name in the form you're importing into.

Before you import your files, it's important to take proper inventory. First, make sure that if you're using a CSV file, it has **either a .csv, .txt, .mer, or .tsv file extension**. Then, check that you know the **comma delimiter settings**. If you're importing a XLSX file, you don't have to worry about comma delimiters, line endings, or file encodings – **just have your data in the first data sheet**.

Once you're ready to go, click **File > Import > Records**. To start, choose the file you'd like to import into Tap Forms; if your records have attachments or photos, you can select those as well. Next, it's time to select specific settings for your file.

File Encoding

Perhaps the most important of these settings is under "**File encoding**". Essentially, selecting the right encoding format will ensure that the characters within the file are viewable and understood by Tap Forms. It's unlikely that you'll have problems with this, and the default of **Unicode (UTF-8)** will likely suit your needs. However, if you write in a language with specific characters, you might have to tinker with these settings.

Comma Delimiter, Date Format, and Time Format

These three settings are important for the correct formatting of your data, but are probably already set to your default method. In some instances, there may be conflicts – like if your date format was entered in another country or your time value has seconds included – **so make sure to double check both your file and these defaults**.

Select a Form

If you're importing records into a form you've already created in Tap Forms, you can use the dropdown menu to identify and select this form. You can also create a new form with a title here.

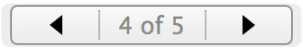
Assign Field Types

Finally, it's time to assign field types to your records. If you want your records to be outfitted with unique field types (check boxes, ratings, etc.), this is the place to do that. This certainly comes in handy when importing records from another Tap Forms document, as you'll already know what field type you're looking for.

> You can also assign field types within the first row of your CSV or XLSX file by appending the field type tag to the field name. For example: `Movie Title<text>,Revenue<number>,Rating<rating>,Cover Image<photo>`. If you use the Export Records feature and enable the Export Field Type Tags option, then you'll see Tap Forms put the field type tags on the first row of the export file.

Record navigator and "Add Missing Fields to Form"

Along the bottom of the window are a pair of arrows.

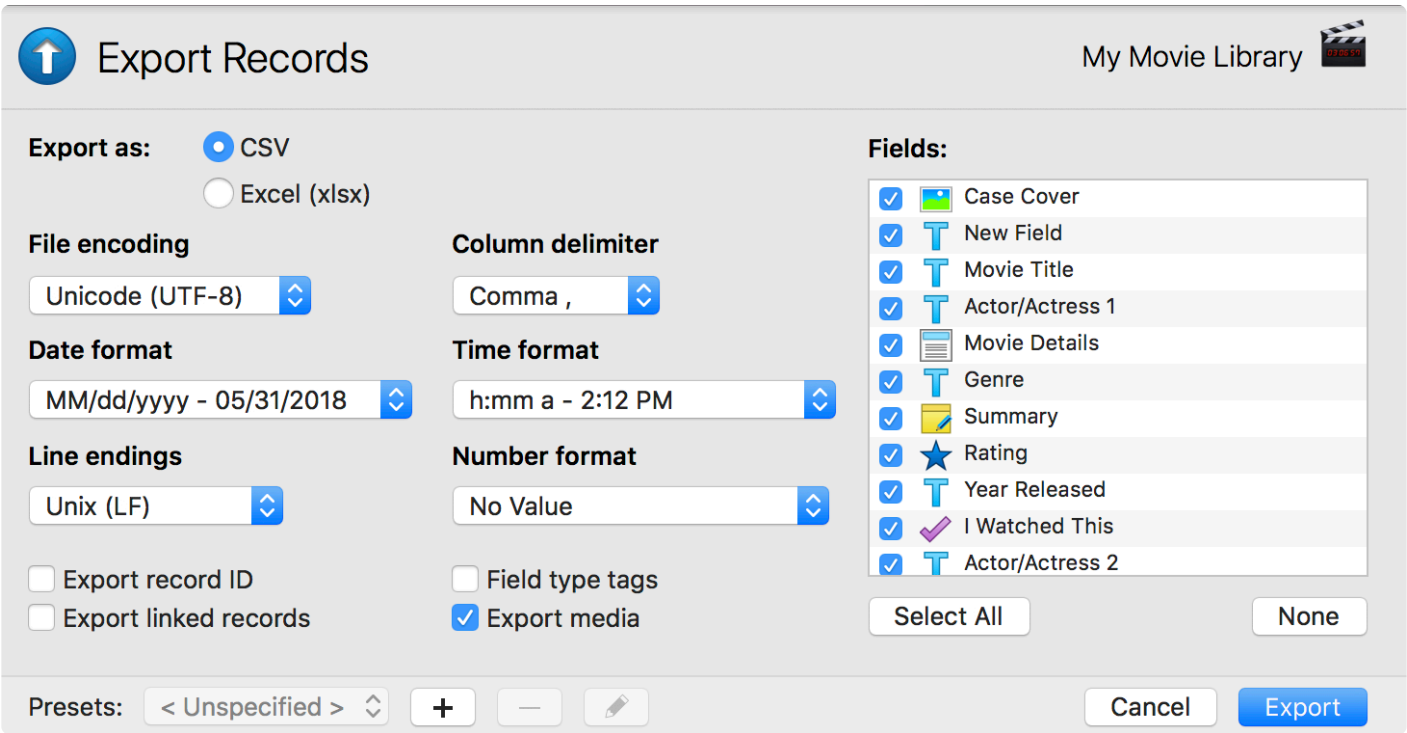


These allow you to quickly switch between records so you can make sure everything is set up quickly.

You'll also see a check box for "**Add missing fields to form**". By ticking this box, any fields that you have in your records that aren't currently in the form will be added – this is especially important when starting a new form from scratch.

Last modified: Feb 07, 2020

14.2. Exporting



Whether you'd like to move your data into an Excel spreadsheet, share it with a colleague, or move into another version of the app, Tap Forms offers **export** functionality that quickly converts your data into a **CSV** or **XLSX** file. **To get started, open Tap Forms, click "File", hover over "Export", and choose**

“Records…”.

When viewing your export options, you’ll have access to a variety of customization options for your CSV file. Although the default options may work for you, it’s important to pay attention to the settings displayed here; **without the right export selections, your file may not appear as desired in the relevant app**.

On the right side of the window is the list of fields that will be included in the exported file. These will display as the header of the columns, with the subsequent rows being filled by the content of your form. **To remove any unwanted fields from the CSV file, tap the check box next to its title**.

Below is a summary of important settings when working with the export features.

File Encodings

As in the Import Records function, you can tell Tap Forms to export your file in a variety of file encodings. UTF-8 is generally the best encoding to use as it supports encoding characters in all languages. It may depend on the program you want to import your data into that dictates which file encoding you should use. Check the other program to see what file encodings it supports.

Number Formats

Tap Forms can also export Number fields in a variety of different formats. For the Currency format, Tap Forms will use your regional number format settings to determine what currency symbol to use during the export. For example, in Canada and the USA currency numbers will be exported like $29.99, but in Europe the same value would be exported as 29.99 €.

Export Record ID

By enabling this option, you’re telling Tap Forms to export the values that uniquely identify each record in your form. Tap Forms will add a column called form_record_id to your CSV file. If you import a file into Tap Forms which has a form_record_id column, it will search for matching records and update their field values rather than adding new records to your form.

Export Linked Records

With this option enabled, Tap Forms will generate separate files containing the records from any linked forms. If you want to import these files into another copy of Tap Forms, make sure you import the parent form’s CSV file first and then import the child records. This way, Tap Forms will be able to join up all the child records to the parent records.

Field Type Tags

By turning on Field Type Tags, you’re telling Tap Forms to generate a header row that contains a tag that identifies the field’s type.

The following are the tags that Tap Forms will generate

Tag	Field Type
<text>	Text
<number>	Number
<date>	Date
<time>	Time
<date_time>	Date & Time
<check_mark>	Checkmark
<contact>	Contact
<web_site>	Website
<note>	Note
<photo>	Photo
<audio>	Audio Recording
<phone>	Phone Number
<rating>	Rating
<location>	Location
<email>	Email Address
<calc>	Calculation
<file>	File Attachment
<form>	Link to Form
<draw>	Drawing
<section>	Section Heading
<date_created>	Date Created
<date_modified>	Date Modified

For example, a CSV export file of a movie library form would look something like this:

Movie Title<text>	,	Release Year<number>	,	Synopsis<note>	,	I Watched This<check_mark>
Terminator	,	1991	,	The cyborg who once tried	,	1

2: Judgement Day				to kill Sarah Connor is dead, and another T-101 must now protect her teenage son, John Connor, from an even more powerful and advanced Terminator, the T-1000.		

Export Media

When you enable this flag, Tap Forms will generate a zip file that contains your records in CSV files and also a folder within the zip file that contain all of the media referenced in your records. Each media type will have a separate folder named with the name of the form being exported and the media type. For example “My Work Expenses-Photos”, “My Work Expenses-Files”, etc.

Last modified: Feb 20, 2019

14.3. Bento Template Importer

Tap Forms for Mac includes a Bento Template Import command to help you migrate from Bento to Tap Forms. Bento has been discontinued by FileMaker and is not fully compatible with macOS High Sierra or newer.

> ! Tap Forms will import Bento 3.0 to 4.1 version templates. However, you will need version 4.0 or higher of Bento in order to be able to export your Bento data along with your templates. One other caveat is that if you’re using a version of macOS higher than Mavericks, you may experience an issue where Bento says “Upgrading Database” but never completes the job if you’re upgrading from Bento 3. If this happens to you, you will need to find an older version of macOS to perform your upgrade. Alternatively, send a Bento 3 backup file to support@tapforms.com and I’ll covert it for you. I have a copy of macOS 10.9.5 Mavericks running inside a Parallels Desktop virtual machine that I use for this process. If you need the 30 day trial version of Bento 4.1.2 in order to convert your data, please email me.

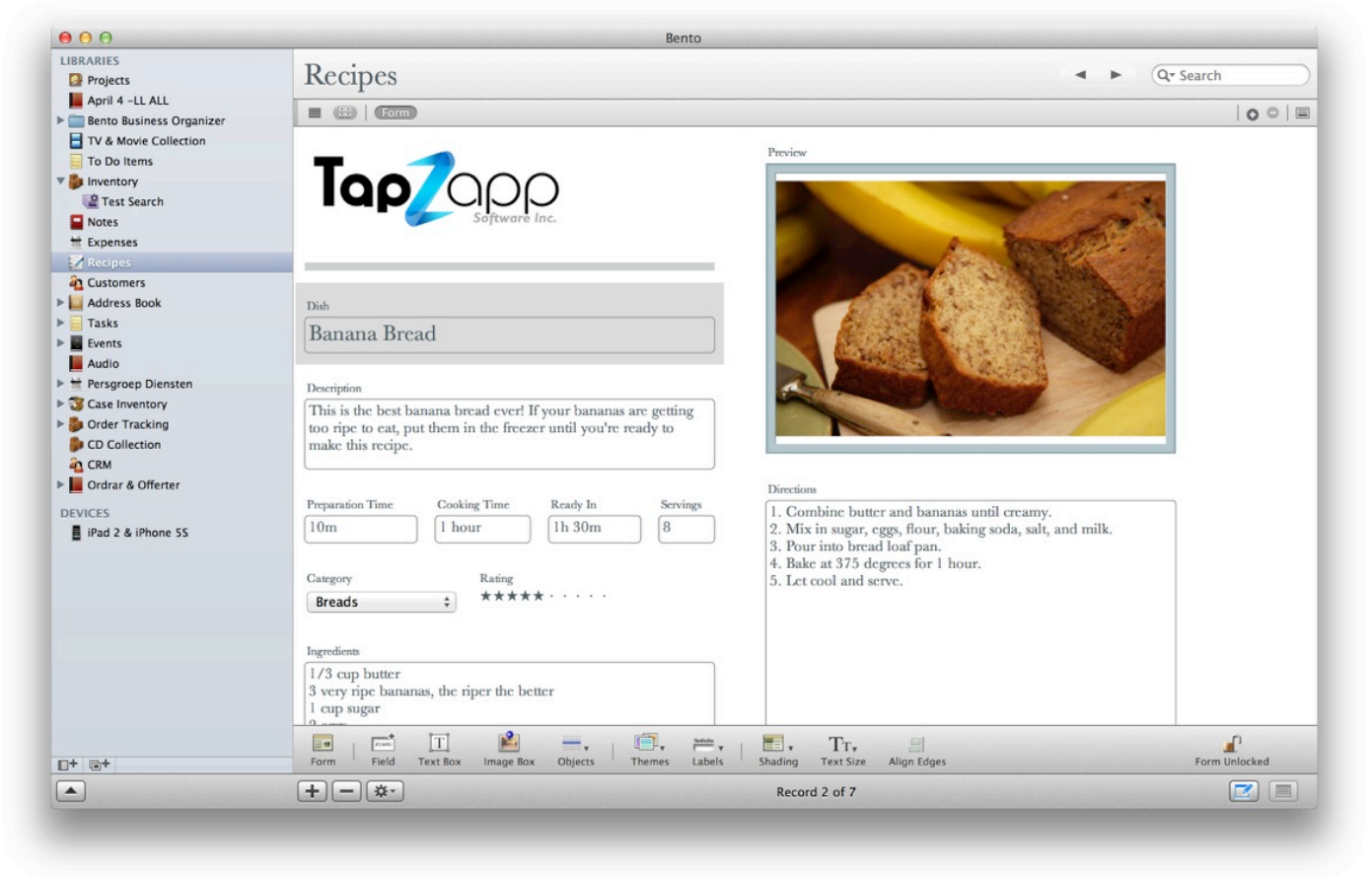
For those migrating to Tap Forms from Bento, these term differences may help you to better understand how Tap Forms compares to Bento:

Bento Term	Tap Forms Term
Library Folder	Category
Library	Form
Record	Record

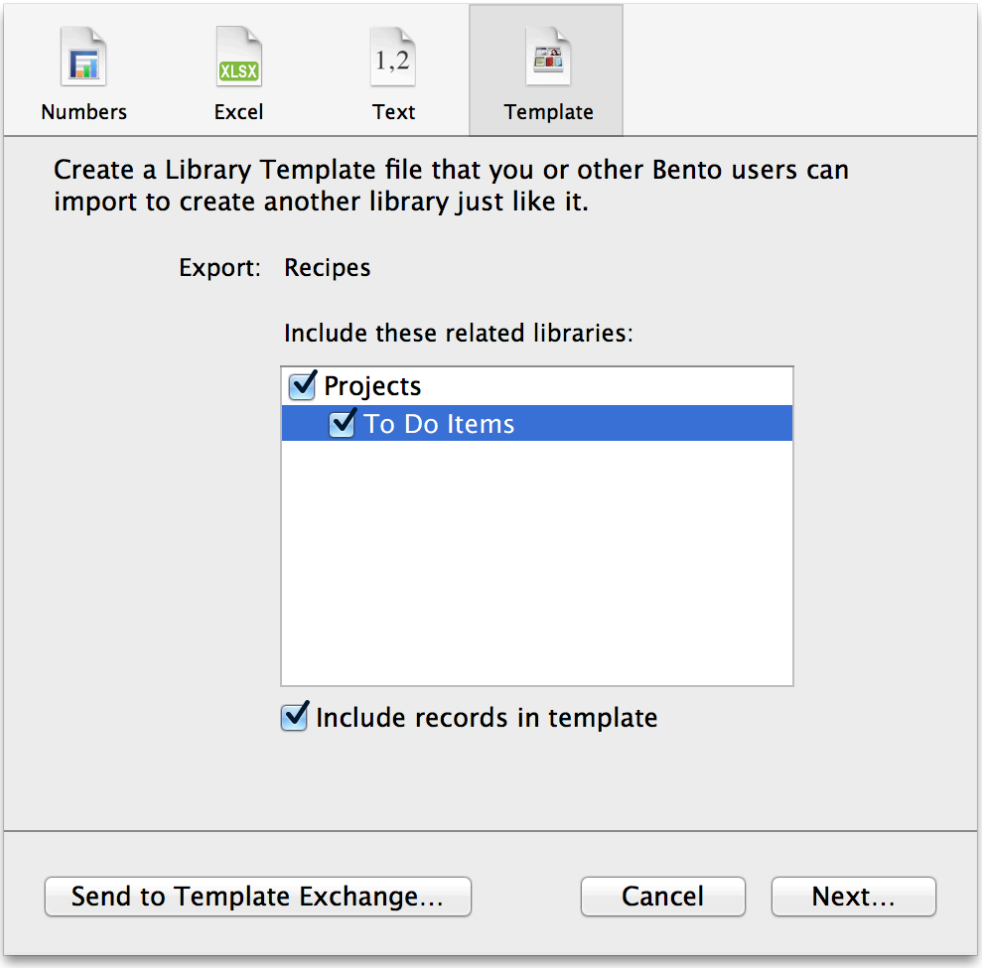
Field	Field
Form	Custom Layout
Smart List	Saved Search

To import your Bento template in Tap Forms:

1. Launch Bento and select your library.



2. Select Export… from the File menu and choose the Template option.



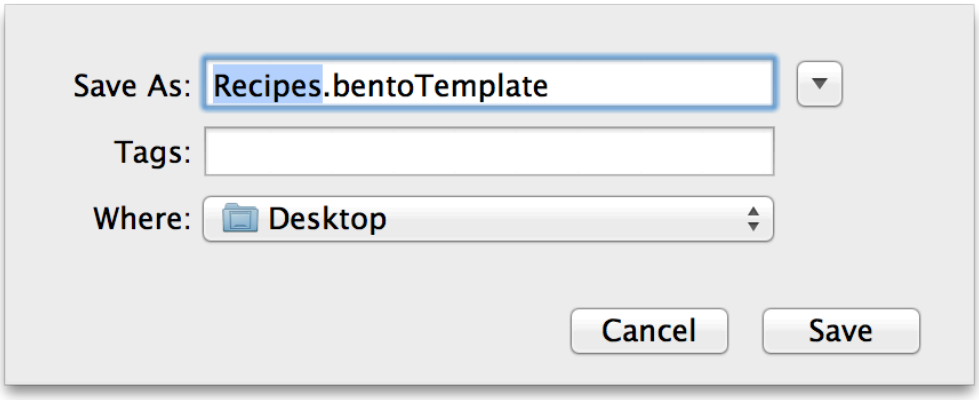
Make sure you click on each related library displayed in the “Include these related libraries” list if you want Tap Forms to be able to join your related forms together. Also click on “Include records in template” if you want Tap Forms be able to import your Bento data also.

Click the `Next...` button to proceed.

> ! If you don’t see the “Include records in template” option, then you’re not using the latest version of Bento. You’ll need to download that first before proceeding. The link is at the top of this page.

> ✻ If you have any encrypted fields in Bento, you will need to change those in Bento first to unencrypted Text fields before you export the template. The encrypted fields will not import into Tap Forms.

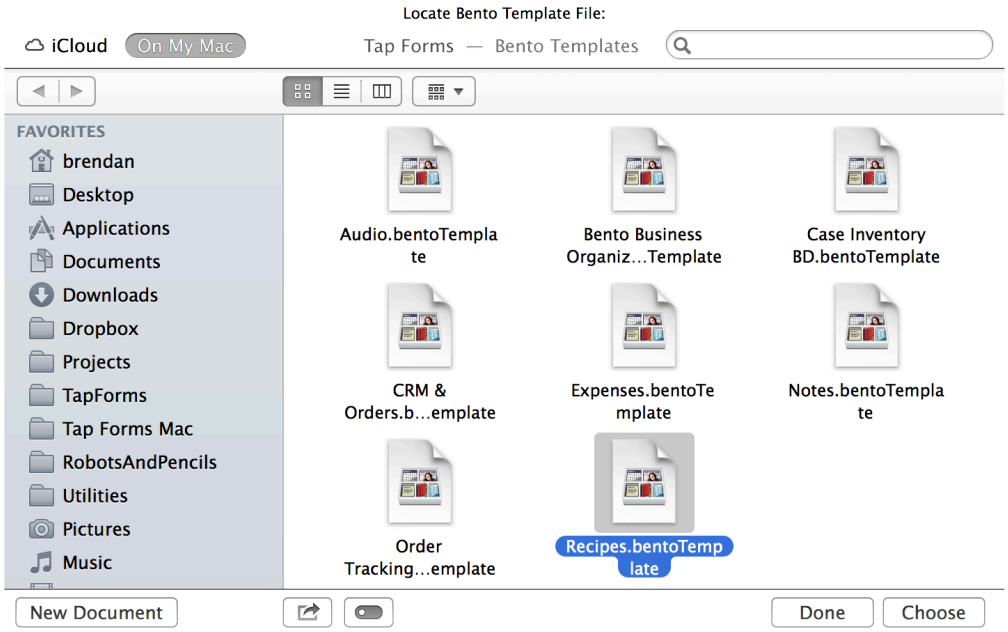
3. Save your template.



4. Launch Tap Forms, create a new empty document or open an existing document you're using, and select the "Import Bento Template" command from the File menu and select your Bento template file.

> If the Import Bento Template option is greyed out, please make sure you have a document already opened and that document is in the foreground.

Click the Choose button when you've found your Bento template.

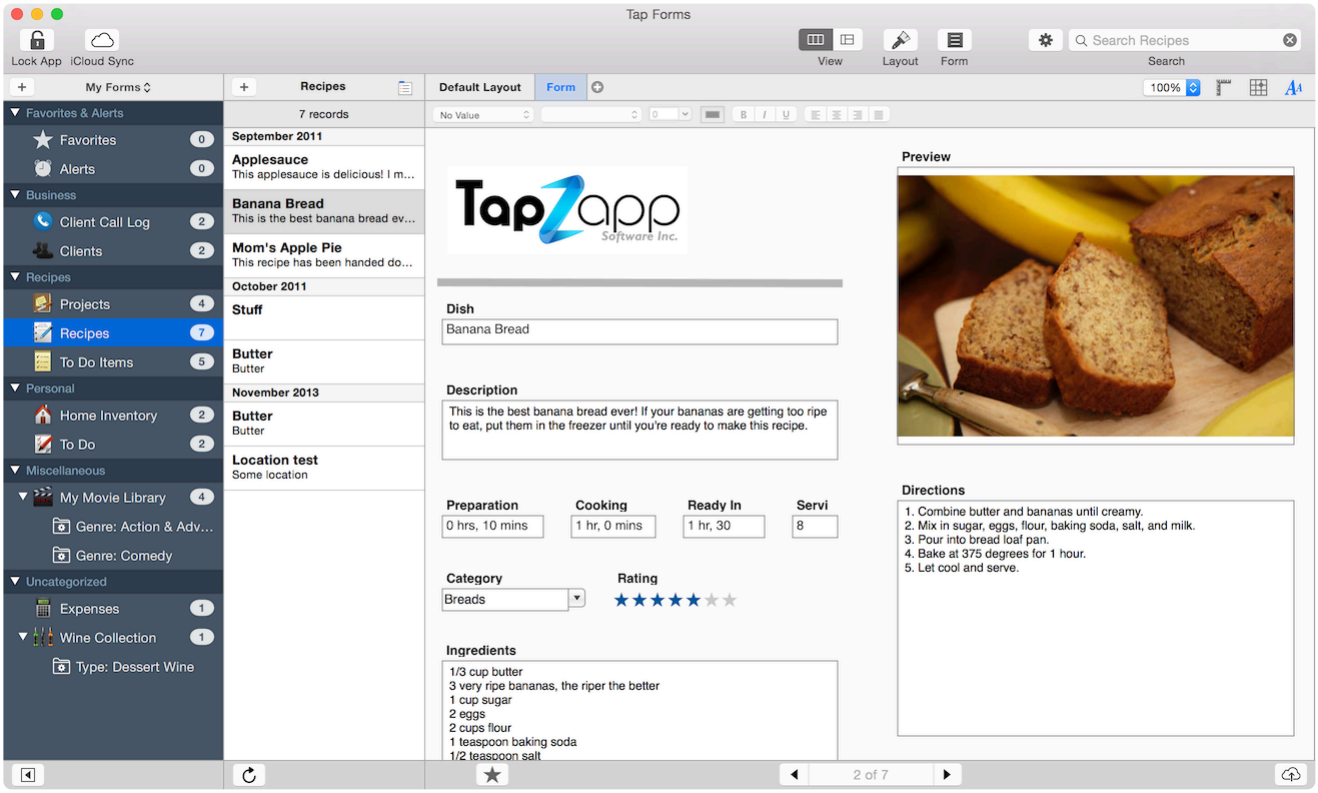


Tap Forms will now import your template and records.

If your template contains more than one related form, Tap Forms will automatically create a new category for you and put your related forms together inside that category. The category will be given a name based

upon the file name of the template you are importing.

You will need to expand the category to view the forms by clicking on the triangle just to the left of the category name.



> Once you've imported your Bento template, you can click on any of the layouts that Tap Forms generated from the Bento library. You may need to reposition some elements and/or make some adjustments to the font sizes and styles. Also, the **Date Created** and **Date Modified** fields are usually the first fields that get imported, so if you don't want them there, you can just delete them in Tap Forms or move them down the list of fields in your form. Otherwise they'll be the first two fields which show up in the records list view.

Last modified: Nov 15, 2018

14.4. Bento Fields in Tap Forms

The following table describes how Tap Forms imports Bento forms and fields. Field types not on this list are not supported in Tap Forms.

> Note: Tap Forms 5.2 now supports importing Bento's **Simple List** field type.

Bento	Tap Forms

Form	A Bento form is converted to a Tap Forms layout. Once you've imported a Bento template, you can further customize the layout in Tap Forms or add additional layouts to meet your needs.
Text	Bento text fields can be one or more lines long. Tap Forms has 2 different text field types. • Text fields are used for shorter one-line bits of information, such as a Movie Title. • Note fields are used for larger amounts of text, such as a Movie Synopsis. • Tap Forms will convert Bento text fields into Text or Note fields depending on the height of the field in the Bento form. • Tall fields in Bento will be converted to Note fields in Tap Forms. • Small fields in Bento will be converted to Text fields in Tap Forms.
Number	Bento Number fields are converted to Number fields in Tap Forms. The Number Formatter is set to Decimals.
Currency	Bento Currency fields are converted to Number fields in Tap Forms. The Number Formatter is set to Currency and the Decimal Places is set to 2. **Note:** Tap Forms supports only the currency that you have by default according to the system's regional settings. For example, in Canada, all currency values will be in CAD. In the UK, all currency values will be in GBP.
Counter	Counter fields are converted to Number fields.
Duration	Duration fields are converted to Number fields with the Number Formatter set to "hours, mins".

Rating	Rating fields are converted to Tap Forms Rating fields.
Dates and Times	Times are converted to Time fields. Dates are converted to Date fields. If the Date field has the flag to show the Time set, then it's converted to a Tap Forms Date & Time field.
Media	Media fields are converted to Photo fields. The photo file is also extracted and copied into the Tap Forms Photos folder.
Checkbox	Checkbox fields are converted to Checkmark fields.
Choice	Choice fields are converted to Text fields. The values in the Choice field are converted to a Pick List and associated with the Text field.
Calculation	Calculation fields are converted to Calculation fields. Tap Forms makes a best guess at trying to convert the Bento formula to a Tap Forms formula, but it's not going to be very accurate since Bento supports more calculation options than Tap Forms at this time. You will probably have to re-do your calculation formulas after the migration.
Location	Locations fields are converted to Location fields. The longitude and latitude values are also set as the location name in Tap Forms.
Phone	Phone number lists are converted to a Phone field in Tap Forms. Only the first phone number is imported. All other phone numbers in the list are ignored.
Email	Email lists are converted to an Email field in Tap Forms. Only the first email address is imported. All other email addresses in the list are ignored.
URL	URL fields are converted to a Website field. Only the first value is imported. All other

	URL values are ignored.
Related Records	Related Record fields are converted into Link to Form fields with the Many to Many Link Type set. Tap Forms also re-establishes the relationship data between forms.
File List	File List fields are converted to File Attachment fields with the Multi-File Enabled setting turned on. Files are copied into the Tap Forms Attachments folder.
Simple List	Simple List fields are converted to Table fields in Tap Forms. Table fields are available in version 5.2 and higher.

The Bento Template Importer will be improved over time as new features are added to Tap Forms which match some of the features previously available in Bento.

Last modified: Jun 07, 2018

15. Tools and Shortcuts

Whether it's keyboard shortcuts or the unique barcode functionality, Tap Forms offers multiple tools and shortcuts for you to take advantage of.

Tools and Shortcuts

Last modified: Jun 07, 2018

15.1. Menu Commands

Along the top of the screen macOS sits the menu bar, which contains actions and preferences for both the system and individual app you're using. In Tap Forms, **the menu bar offers many critical and useful options for different app functionality.**

File

Under "File", you'll have the ability to create a new document, open other **database documents**, **import** and **export**, and backup your files in Tap Forms, among other options. This is also the location where you'll begin the **printing** process for your records.

Edit

"Edit" is the more traditional menu item, including options for **copy**, **paste**, **undo**, **redo**, **delete**, etc. Most of the things found here are provided by the system.

View

Within the "View" tab are multiple ways to **switch between views** in Tap Forms. Also available are shortcuts to viewing all forms, your forms, or customization options for the **toolbar** and **Touch Bar**.

Forms

"**Forms**" contains four options: "**New Form…**", "**Edit Form…**", "**Duplicate Form…**", and "**Delete Form…**".

Records

Similar to the "Forms" menu, "**Records**" is specific to the records you've created in Tap Forms. **Deleting**,

duplicating, and **editing** can be done here, as well as switching between records or creating a new one.

Layout

When working with **layouts**, “Layout” will be your go-to location for making changes. **You’ll see ways to alter layouts, adjust what tools are displayed, and how the text looks within your layout.**

Tools

“Tools” offers two shortcuts: “**Edit Categories…**” and “**Edit Pick Lists…**”. Both of these will jump you straight into the Lists tab of Preferences.

Window

Like “Edit”, “Window” features mostly system options. **However, the bottom settings are Tap Forms-exlusive: “Database Documents” and the documents you have open at the current time**.

Help

The “Help” tab offers quick access to the Tap Forms manual and screencasts. There are also shortcuts to emailing Tap Forms support, as well as to the Twitter and Facebook pages for the app.

Last modified: Jun 07, 2018

15.2. Keyboard Shortcuts

Below is a list of the available keyboard shortcuts in Tap Forms for Mac. Though not included in the table, Tap Forms also supports copy, paste, cut, etc.

Action	Shortcut
Open	⌘ + O
Save Note	⌘ + S
Sync Now	⇧ + ⌘ + S
Close	⌘ + W
Print	⌘ + P
Paste as Plain Text	⇧ + ⌘ + V
Email Selected Addresses	⇧ + ⌘ + M
Insert Date	⌃ + D
Insert Time	⌃ + T

Insert Date & Time	⌃ + ⇧ + D
Find – Form	⇧ + ⌘ + F
Find	⌘ + F
Find and Replace	⌥ + ⌘ + F
Find – Next	⌘ + G
Find – Previous	⇧ + ⌘ + G
Find – Use Selection for Find	⌃ + ⌘ + E
Find – Jump to Selection	⌘ + J
Show Spelling and Grammar	⌘ + :
Check Document Now	⌘ + ;
Emoji & Symbols	⌃ + ⌘ + ␣
All Forms	⌘ + 1
My Forms	⌘ + 2
Single Column View	⌘ + 3
Multi-Column View	⌘ + 4
Calendar View	⌘ + 5
Map View	⌘ + 6
Photo Grid View	⌘ + 7
Hide Forms List	⌘ + 8
Refresh Records List	⌘ + R
New Form	⇧ + ⌘ + N
Edit Form	⇧ + ⌘ + E
Duplicate Form	⇧ + ⌘ + D
Delete Form	⇧ + ⌘ + ⌫
New Record	⌘ + N
Edit Record	⌘ + E
Duplicate Record	⌘ + D
Delete Record	⌘ + ⌫
Advanced Find and Replace	⌃ + ⌫

Go to – Next Record	⌘ +]
Go to – Previous Record	⌘ + [
Go to – First Record	⇧ + ⌘ + [
Go to – Last Record	⇧ + ⌘ +]
Go to – Parent Record	⌘ + ←
Go to – Child Record	⌘ + →
New Layout	^ + ⇧ + N
Edit Layout	^ + ⇧ + E
Delete Layout	^ + ⇧ + ⌫
Align Objects – Left Edges	⌥ + ⌘ + ←
Align Objects – Right Edges	⌥ + ⌘ + →
Align Objects – Top Edges	⌥ + ⌘ + ↑
Align Objects – Bottom Edges	⌥ + ⌘ + ↓
Font – Show Fonts	⌘ + T
Font – Bold	⌘ + B
Font – Italic	⌘ + I
Font – Underline	⌘ + U
Font – Bigger	⌘ + +
Font – Smaller	⌘ + –
Font – Copy Style	⌥ + ⌘ + C
Font – Paste Style	⌥ + ⌘ + V
Text – Align Left	⌘ + {
Text – Align Center	⌘ + Vertical Bar
Text – Align Right	⌘ + }
Text – Show Ruler	^ + ⌘ + R
Text – Copy Ruler	^ + ⌘ + C
Text – Paste Ruler	^ + ⌘ + V
Go to – Next Layout	⇧ + ⌘ + .
Go to – Previous Layout	⇧ + ⌘ + ,

Edit Pick Lists	⌘ + L
Minimize	⌘ + M
Show Previous Tab	⌃ + ⇧ + ⇥
Show Next Tab	⌃ + ⇥
Enter Full Screen	⌃ + ⌘ + F
Database Documents	⌘ + 0

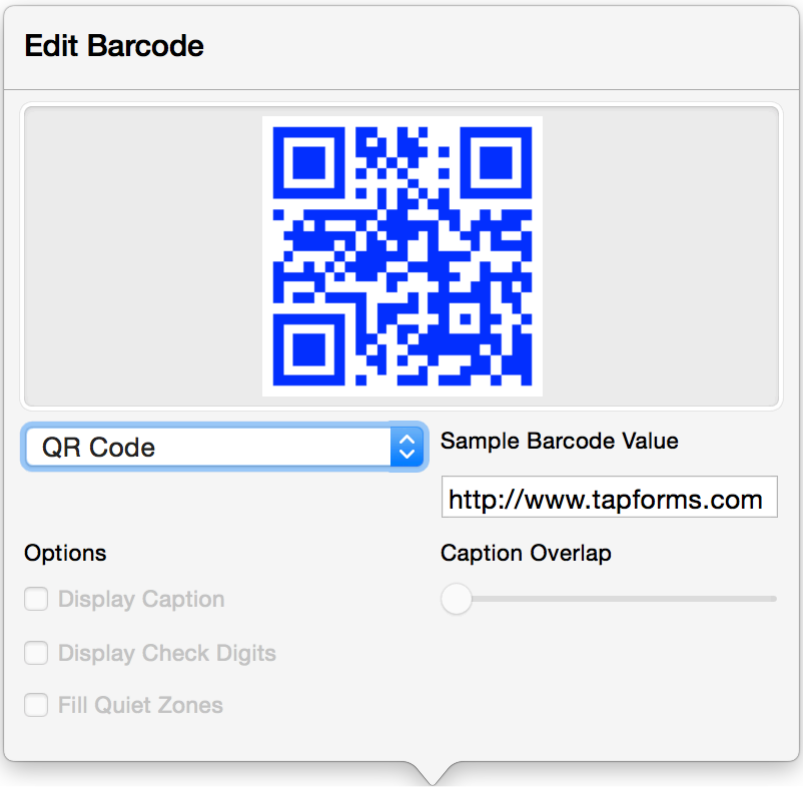
Last modified: Jun 07, 2018

15.3. Barcodes

Tap Forms can now generate and print 24 different kinds of barcodes.

The following barcode symbologies are supported:

Coda bar	Code 39 modulo 43	Facing Identification Mark	Pharmacode One Track
Code 11	Code 93	Interleaved 2 of 5	POSTNET
Code 128	EAN 13	ISBN	QR Code
Code 39	EAN 2 Supplement	ISMN	Standard 2 of 5
Code 39 Full ASCII	EAN 5 Supplement	ISSN	UPC A
Code 39 Full ASCII modulo 43	EAN 8	MSI (Modified Plessey)	UPC E



To configure your barcode:

1. Click on the Form button in the toolbar.
2. Click the Fields tab.
3. Find the field you would like a barcode generated for and click on it.
4. Click on the Display as Barcode checkbox in the field's properties pane down below.
5. Click on the Edit Barcode button.
6. Select a barcode symbology. You can enter sample text to see how it will look.

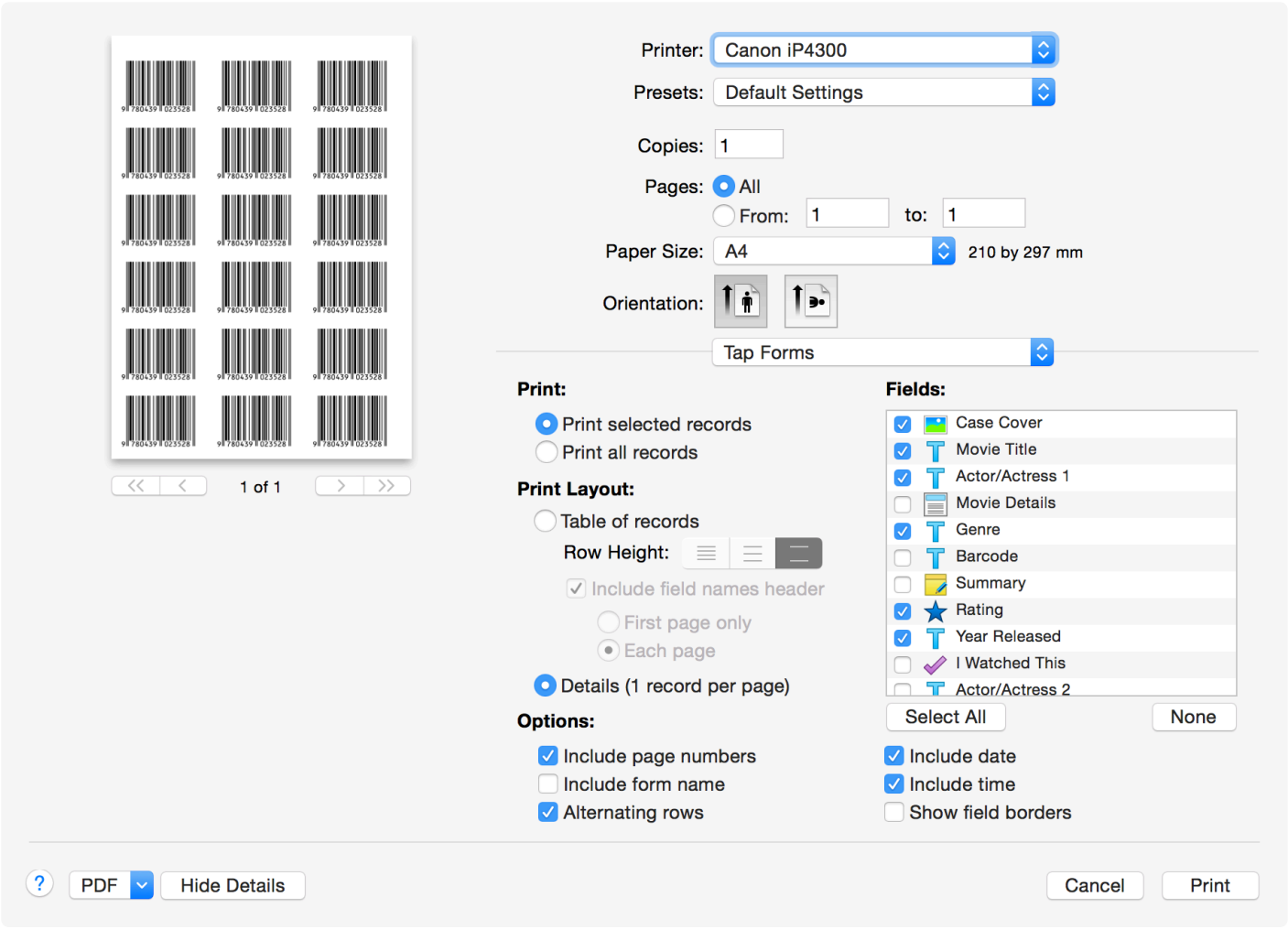
To display your barcode:

1. Follow the instructions in the "Designing Layouts" topic to create a new custom layout.
2. Drag your barcode field into your custom layout.
3. Resize your barcode to fit the area required.

A great use of the new labels feature is to put a barcode onto a label and print them out to stick them on anything you want barcodes on.

To print your barcodes:

1. Select the custom layout which contains your barcode.
2. Select the Print command from the File menu.
3. Click the Print button.



If you're printing just a single label on one page, select the **Print selected records** option. If you want to print different barcodes for each label, select the **Multiple records per page** option for your label and then select the **Print all records** option on the Print sheet.

Last modified: Jun 07, 2018

15.4. Printing

Tap Forms has 4 different ways of printing your records:

1. Record Details with the Default Layout
2. Record Details with a Custom Layout
3. Table of records in a list format
4. Labels in a grid format

To print your data, click on the **File** menu and then click on the **Print** menu item.

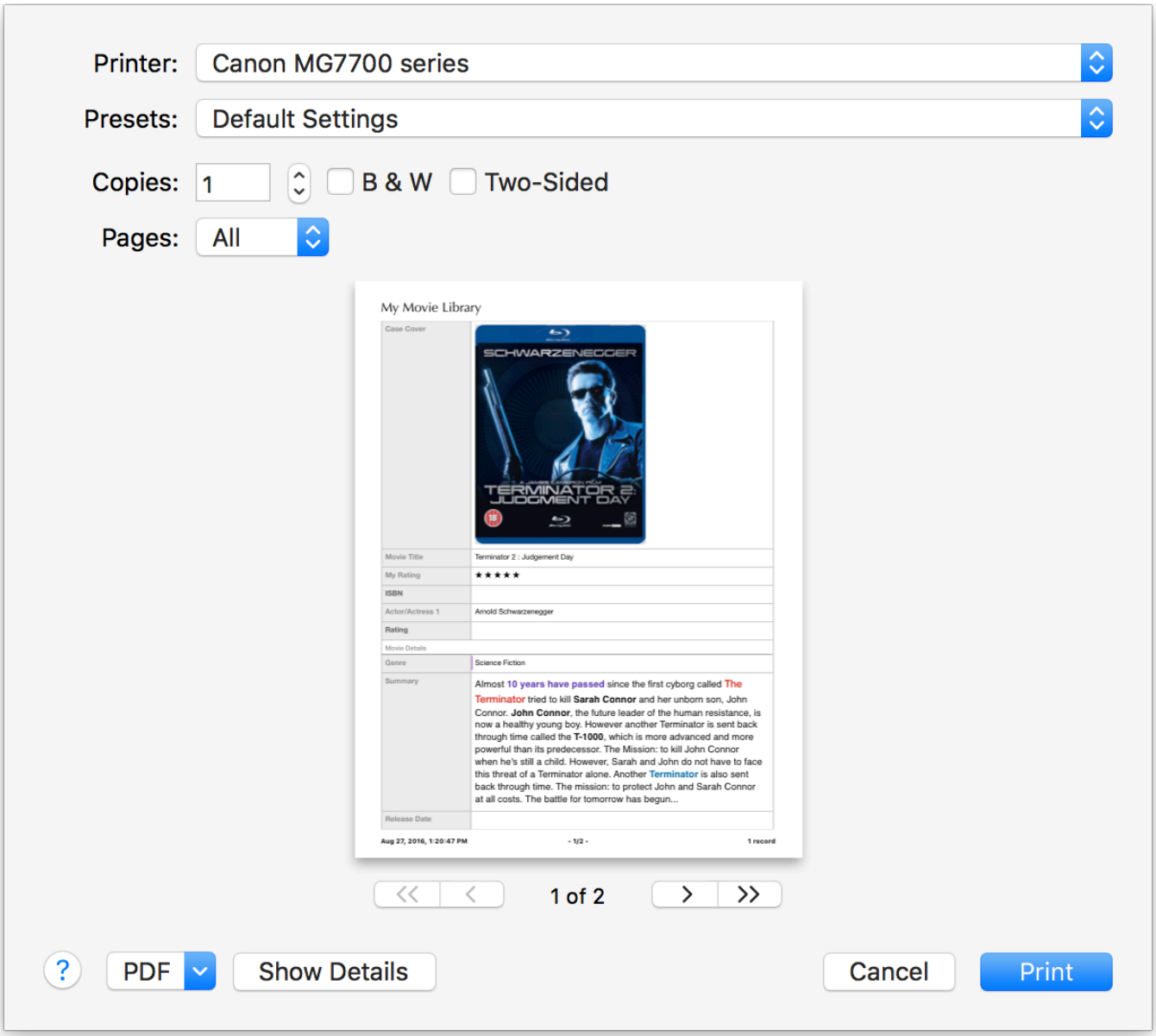
1. Record Details with the Default Layout

The benefit of printing the Default Layout is that it's quick to get a nice printed report of your record details. Also, if a single record is quite long, Tap Forms will intelligently span the printout of the record across multiple pages, avoiding cutting off the contents of an individual field across pages.

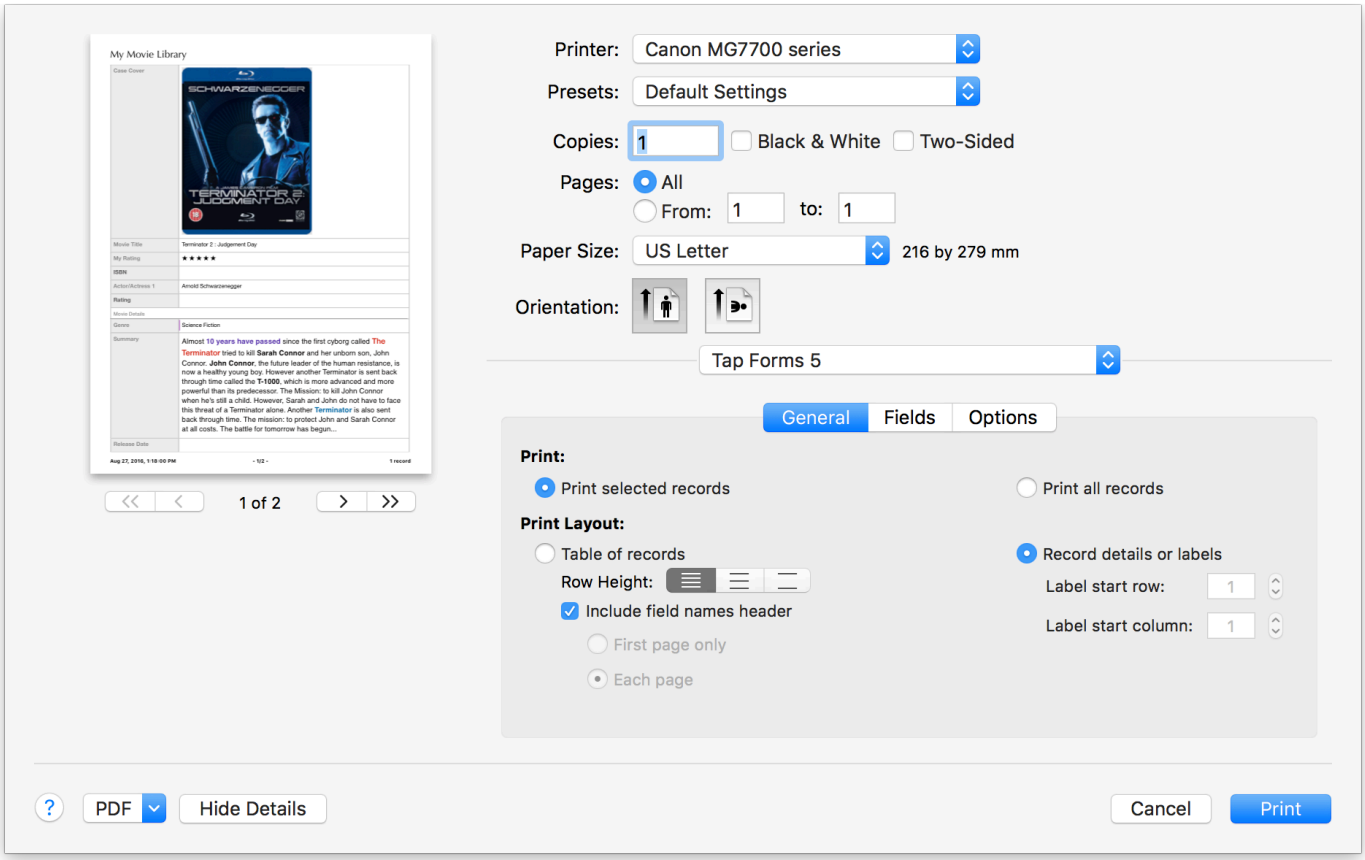
Initially when you display the Print sheet, it will appear with only the very basic print settings.

To see the advanced print settings, click on the **Show Details button**.

You can also use the Fields list to select which fields you would like to print or not print. Tap Forms will make sure there are no gaps in the printout as you enable or disable different fields.



The print sheet will expand to display many more options for printing, including a variety of Tap Forms specific options.



The top area of the print sheet contain standard print settings that are available in most apps. You can select the printer, the number of copies, which pages to print, the paper size, and the paper orientation.

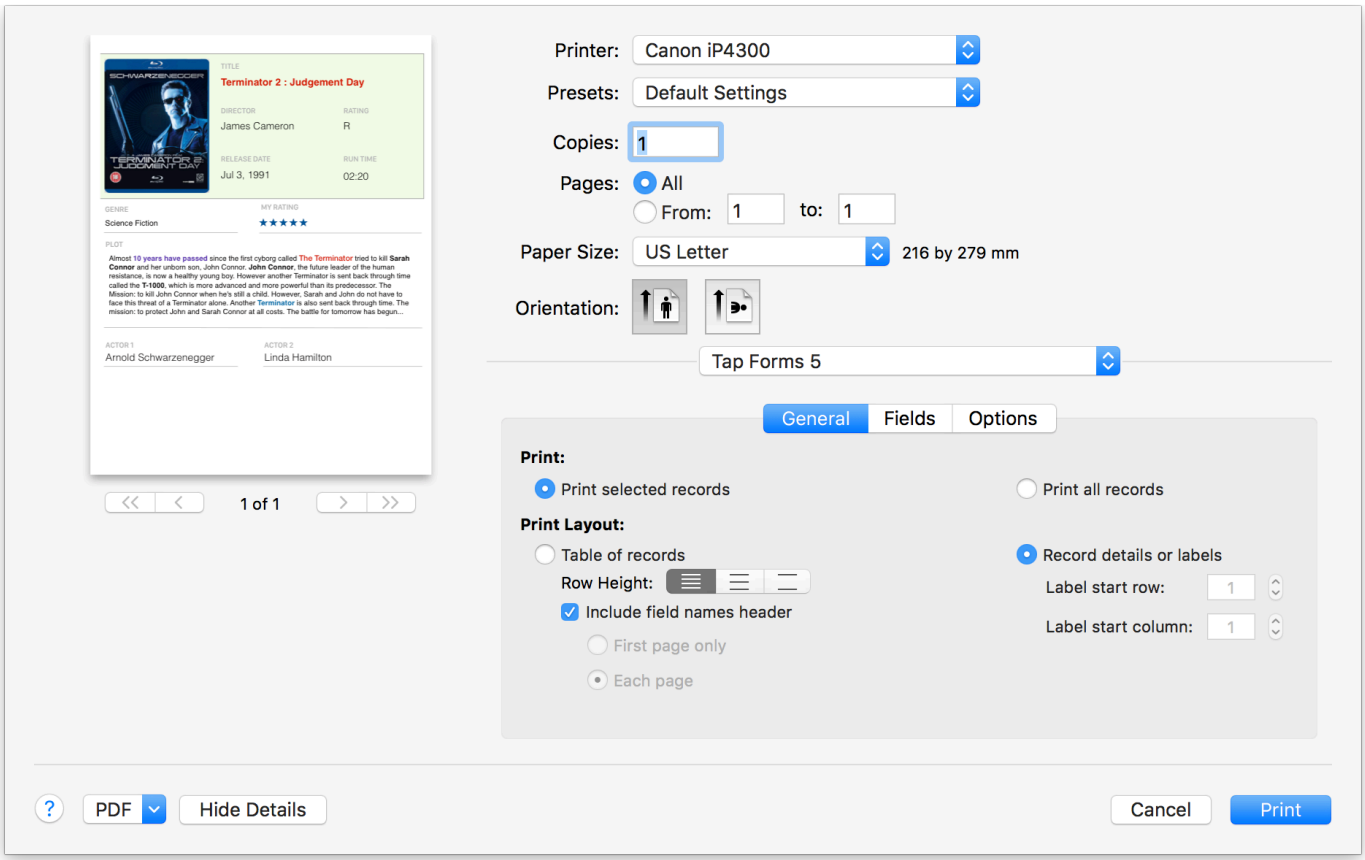
The bottom area contains options specific to Tap Forms.

Most of the options in the Tap Forms area are only relevant for printing the Default Layout and the Table of records layout. They have no effect on printing custom layouts other than the following options:

1. Print selected records – to print just the records you've selected in the records list view.
2. Print all records – no matter how many records are selected.
3. Print field borders – to enable or disable printing of any borders around fields in your custom layout.

2. Record Details with a custom layout

There's not much difference in the print sheet when you're printing a custom layout.



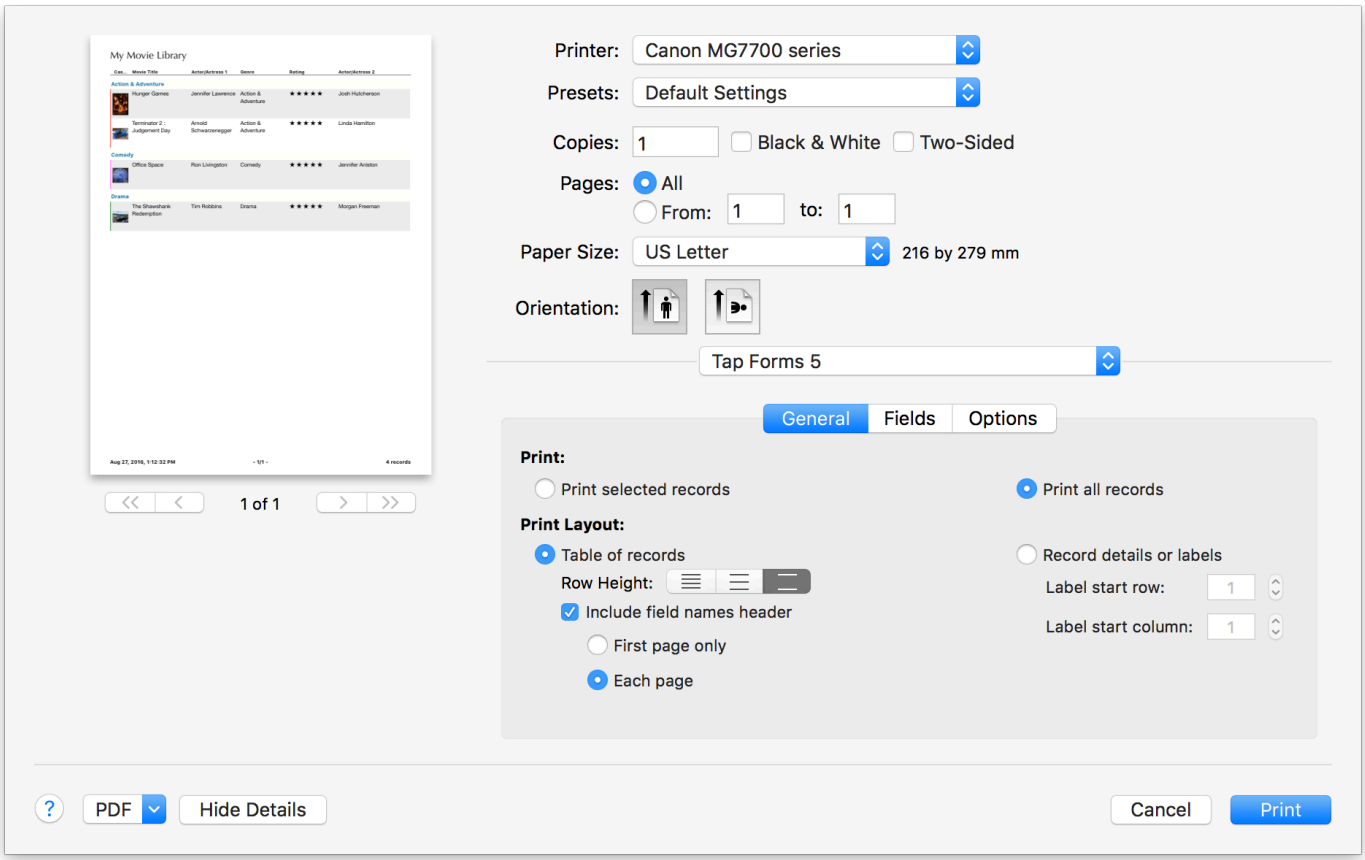
3. Table of records in a list format

If you need to print multiple records per page in a list format with headers and footers, then use this print layout. Tap Forms will print as many columns as will fit on a single page width. You can change to landscape orientation to get more room to print additional columns. You can also enable or disable different fields to print on the multi-column list view.

> The field print order in the Table of records print layout is based on the order of the fields displayed on the Multi-Column List View.

To change the field print order:

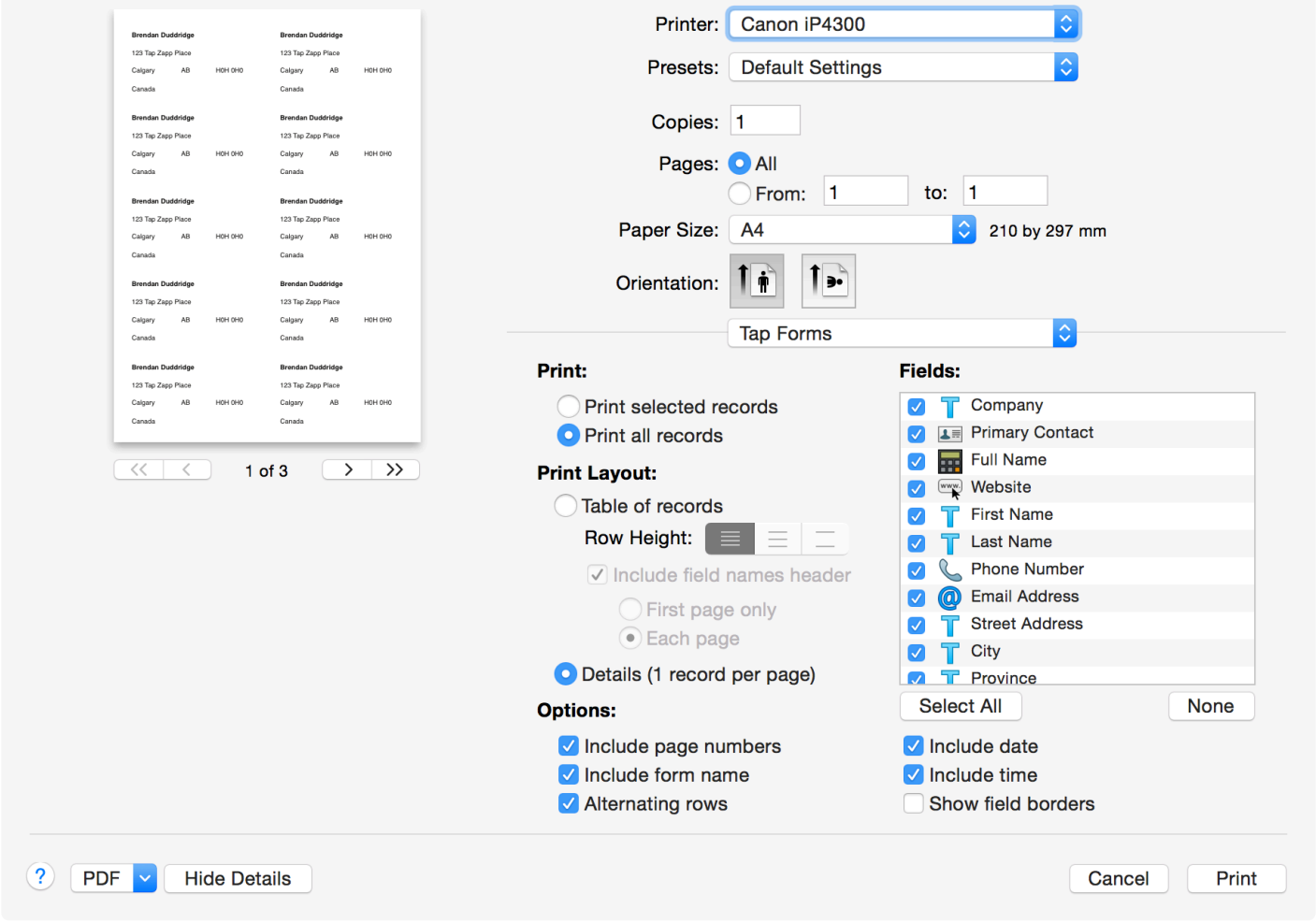
1. Select the Multi-Column list view
2. Click the select fields icon to the right of the field list
3. Drag the fields up or down to match the desired print order which will also be displayed in the Multi-Column List View after Save is clicked.
4. Click Save to save the desired order for the Multi-Column List View and also for printing.



> To adjust the widths of the columns for printing, click on the Fields tab on the Print panel, double-click on each width, type in a new value, and press the Return key to accept the new width. Tap Forms will remember the widths of the columns for the next time you print that form.

Most of the options on the print sheet will have some effect on the printout. For example, you can enable or disable the printing of the form name, the date, the time, and choose whether or not you want alternating light and dark row backgrounds for your records.

4. Labels in a grid format



Last modified: May 11, 2019

16. Customization

Aside from the customization options found across forms, fields, and records, you can also customize certain interface elements – the toolbar and the Touch Bar.

Customization

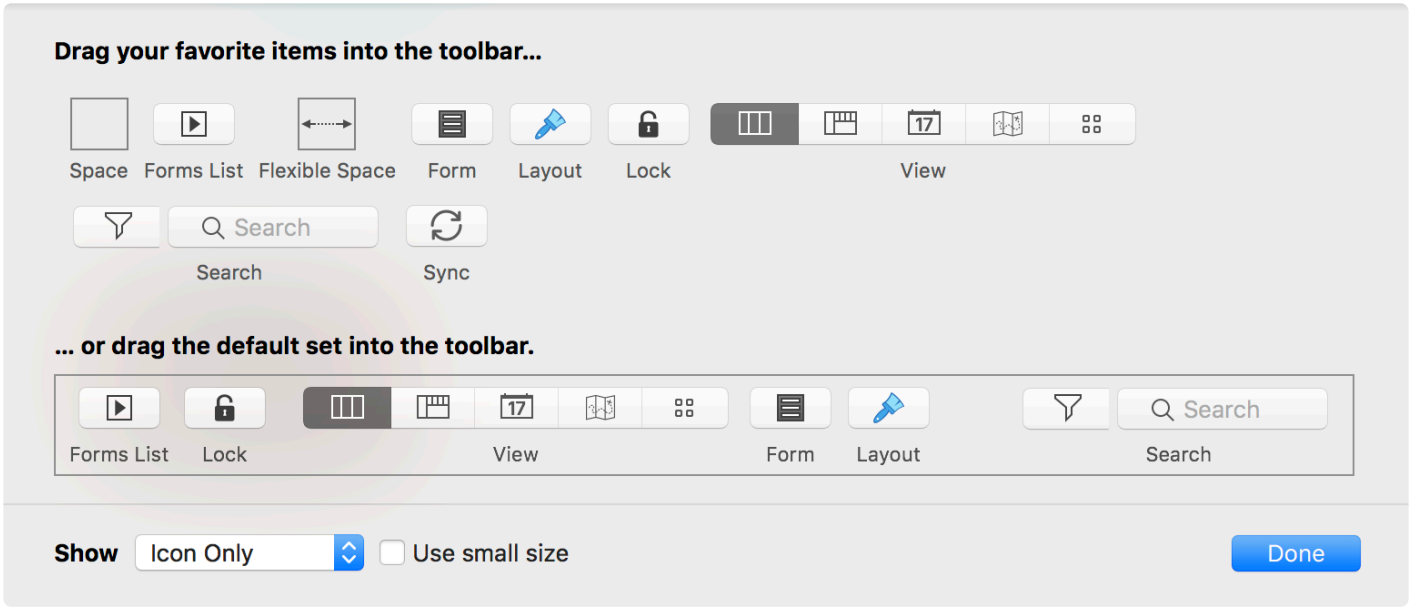
- Toolbar
- Touch Bar

Last modified: Jun 07, 2018

16.1. Toolbar

Along the top of the Tap Forms window is a persistent toolbar, carrying a useful set of tools that provides easy access to important functions of the app. By default are options like the differing views, the search bar, and the format tab, among others. However, the toolbar may not contain the perfect set of features for you, which is why we've included the ability to add, remove, and rearrange it.

Under "View" is the option to "Customize Toolbar…", which will launch you into the toolbar editor. While in this mode, you can drag things to and from Tap Forms' toolbar – drag up to the bar to the dropdown window to add, while drag off the toolbar to release. You can also click and drag side to side to rearrange the tools currently sitting on the toolbar.



On the bar is also a gray, outlined box, which acts as spacing between the options in the toolbar. To break this up, you can use the "Flexible Space" item to add an item in the middle of a previously empty area. Also

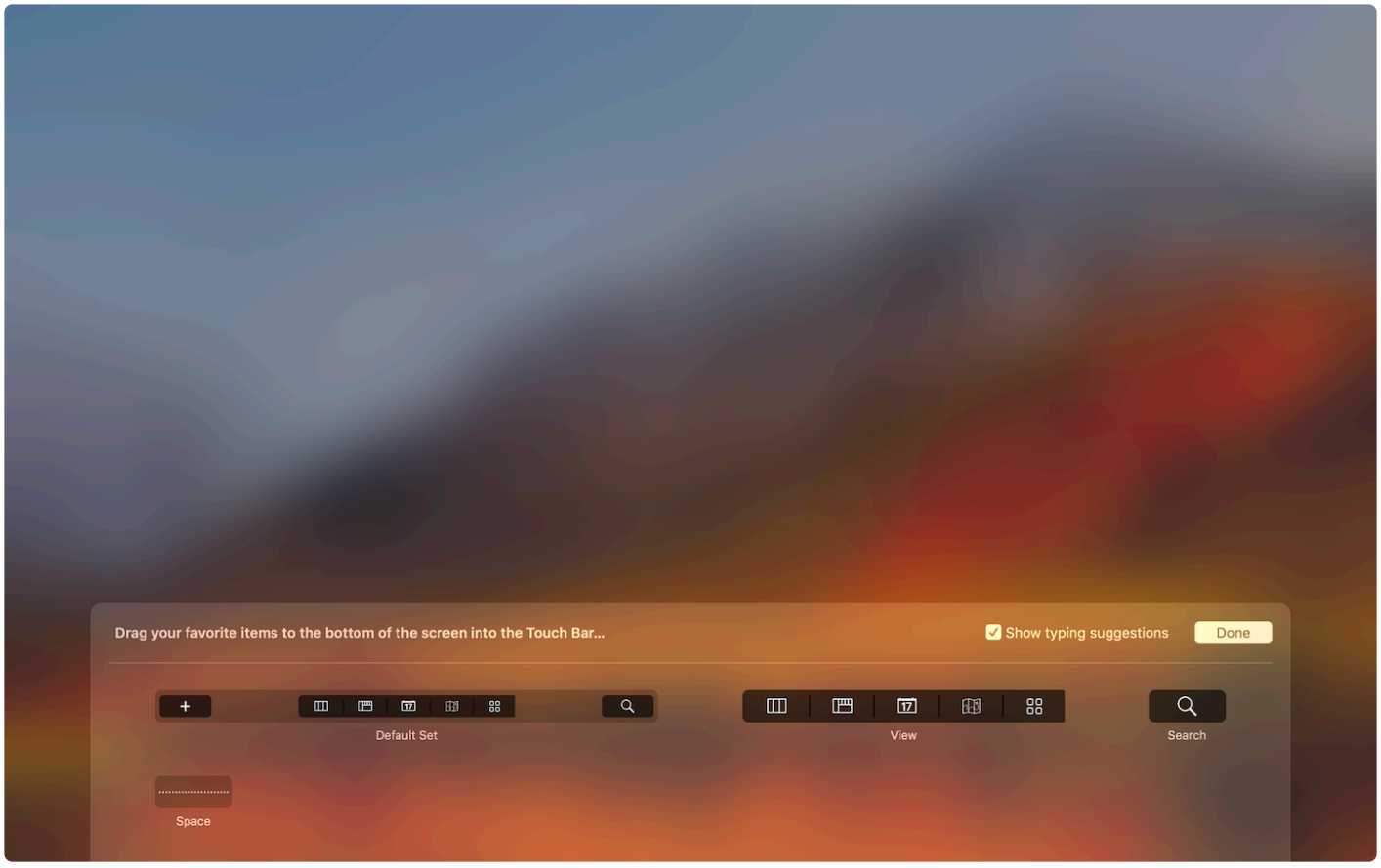
available to be added to the toolbar is a “Sync” button, which will automatically sync your database to your devices.

If you’ve adjusted the toolbar to a point where you’d like to simply reset it to its default settings, drag the default toolbar – found outlined in a black box – to the window’s toolbar. Any changes you’ve made will be reset to the default, which you can then begin editing once again.

At the bottom of the window is a dropdown menu representing what you’d like to see on the toolbar: icons and text, icons only, or text only. Switching between these options will change the toolbar in real time so you’ll get an idea of the preference you like as you change. When you pick the option you like, you can choose to use a small version of it or keep it the default.

Last modified: Jun 07, 2018

16.2. Touch Bar



For MacBook Pro laptops with the Touch Bar, Tap Forms offers quick access to multiple features via the Touch Bar shortcuts. Included by default on the Touch Bar is:

- An add button to instantly begin creating a **record**
- A view switcher for swapping between **Single-Column**, **Multi-Column**, **Calendar**, **Map**, and **Photo Grid**

- A **search** button, which jumps to the search field for typing

After clicking into the Touch Bar preferences via **View > "Customize Touch Bar…**", you'll have the ability to change the look of the Touch Bar. Other than the three tools mentioned above, **the only thing to add into the Touch Bar is additional space between the available options**; when customizing the Touch Bar, you'll mostly be removing or rearranging the buttons.

Touch Bar customization features two parts: **the window on the display and the options on the Touch Bar**. On the display, Tap Forms will display the available tools. To add one one of these to the Touch Bar, click on it and drag it down to the bottom of the screen. As you drag below the display, you'll see the selected tool appear on the Touch Bar – position it in the appropriate location and release your click. Similarly, move your mouse to the Touch Bar to bring tools to the top display and remove them from the Touch Bar.

When in the editing view, the Touch Bar tools will enter a "wiggle" mode, where you can tap and drag the options to rearrange them.

Like in many other apps and websites, the Touch Bar will also adapt to the work you're doing. These instances can include sharing or saving a document and changing certain colors within the interface.

Last modified: Feb 20, 2019

17. Preferences

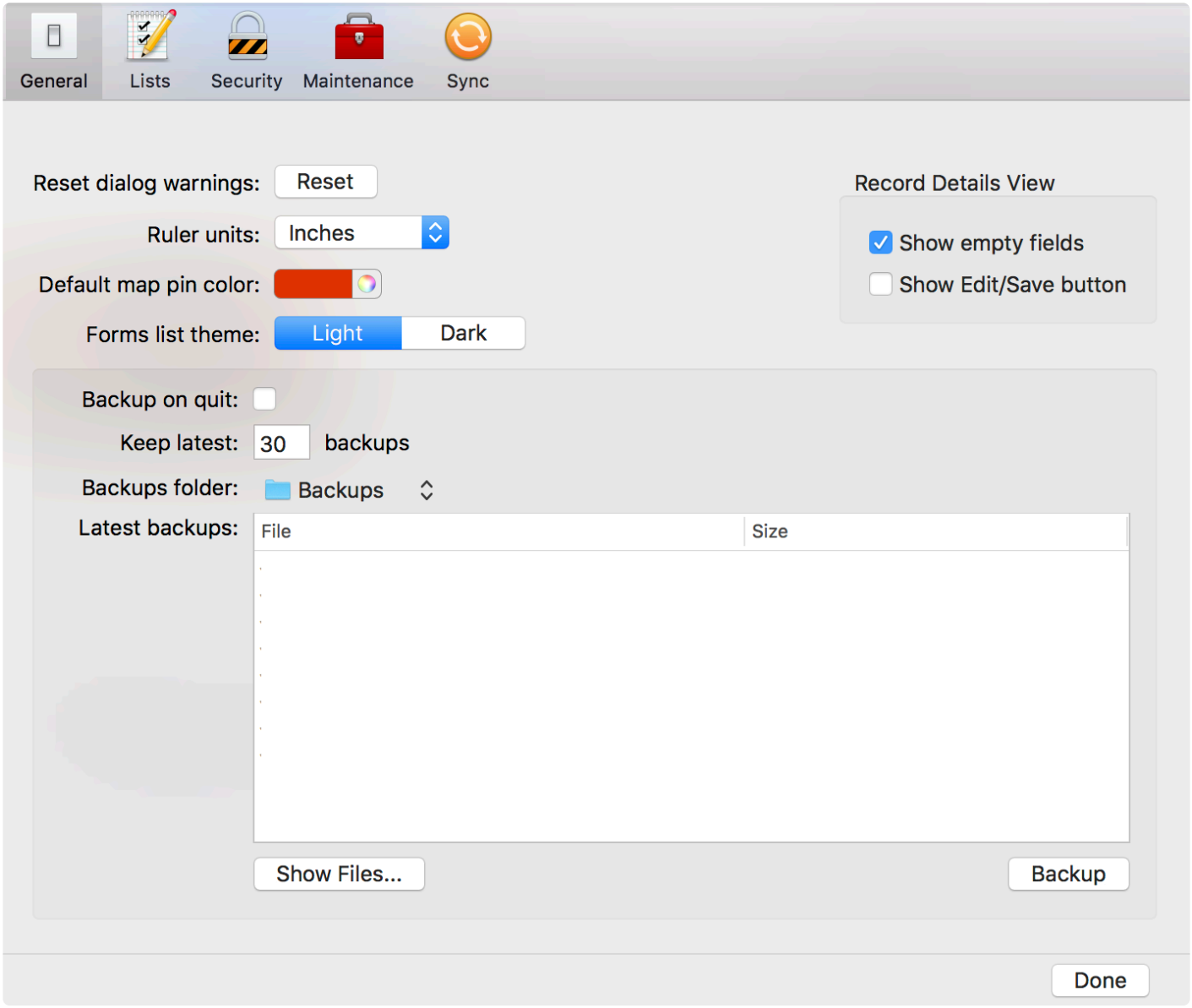
The Preferences is a great place to familiarize yourself with the way Tap Forms behaves. In the “**Preferences**” topics, you’ll read about each option found in the section.

Preferences

- General
- Lists
- Security
- Maintenance
- Sync

Last modified: Jun 07, 2018

17.1. General



The General section of Preferences contains a small but important set of settings to know. From small cosmetic and functional changes to the all-important backup feature, here's a rundown of what's available in the first Preferences tab.

Reset Dialog Warnings

Throughout your usage of Tap Forms, you may see an occasional dialog window with warnings. If you choose to suppress them, they'll only be accessible through the "Reset dialog warnings" button. By pressing this button, you'll see any warnings that you've previously suppressed.

Ruler Units

In the Layout Designer view, you'll have the opportunity to create a unique layout for your records. When working, a ruler will be displayed in the interface to help you gain a better understanding of the scale and spacing of your work. If you'd like to change the units to either centimeters, inches, picas, or points, you can do that here.

Default Pin Map Color

Records with Location fields can be used in the Map view, placing pins on the locations you have saved in the form. By default, the color of this pin is red; however, you can change this by either selecting from one of the pre-assigned colors or choosing a color from a wheel.

Forms List Theme

Along the left side of a Tap Forms window sits the Forms List, which contains the categories and forms you've created in the app. Like most of the interface, this sidebar is lighter element, also including a bit of transparency. For an added point of contrast, Tap Forms offers a dark theme that solidifies the list with gray and black colors.

Record Details View

The record details section, found in any of the five views, is the collection of data inputted into your added fields. Without a change to the preferences, records will automatically show empty fields and be editable by an immediate click into the details view. If you'd like to hide fields you haven't used or add an edit or save button to the interface, you can do that under the "Record Details View" header.

Backups

Perhaps the most important part of the General preferences, the backups section is where you'll find settings on how to operate Tap Forms backups. Should anything happen to your Tap Forms data, use the **Restore** command in the **File** menu to restore your document from a previously made backup.

In the backups section, you can instruct Tap Forms to back up your data each time you quit the app, how many backups you'd like to keep, and which folder on your drive to store your backups. If you'd prefer to manually back up your data periodically, you can also do this here or you can use the **Backup** command in the **File** menu.

Last modified: Jan 15, 2020

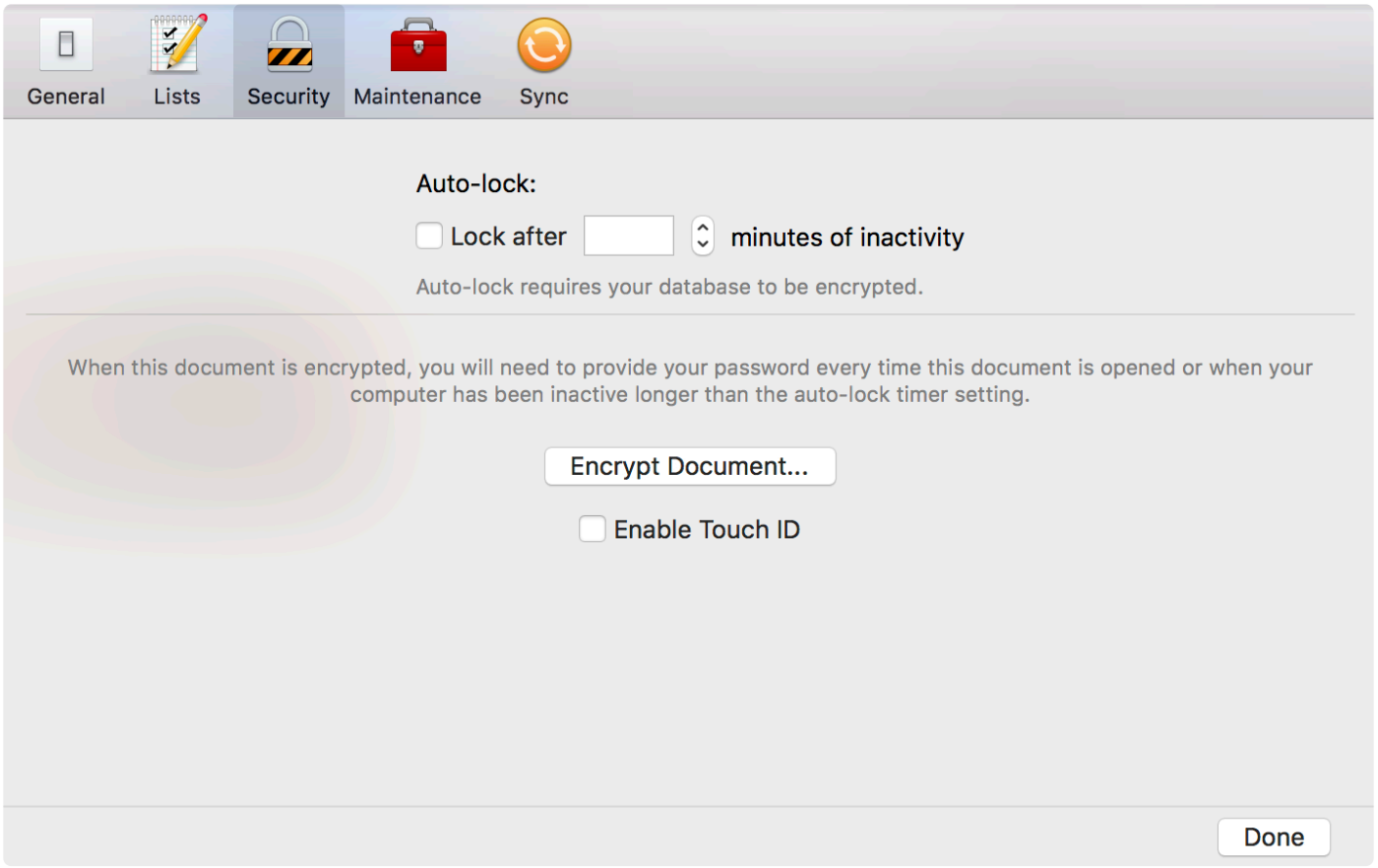
17.2. Lists

Under the Lists preference, you can edit category and pick list information. For more information about these two options, please visit their respective articles.

- Categories
- Pick lists

Last modified: Jun 07, 2018

17.3. Security



Tap Forms values your security, offering multiple options to keep your data safe and protected. In the case that you've stored sensitive information within the app, you can choose two ways to utilize security.

Locking Tap Forms

To protect your forms from any unwanted eyes, you can choose to lock Tap Forms with a password. By auto-lock at a user-set interval and/or a lock when the document is first opened, only a password will open the document. To streamline the unlock process further, users with MacBook Pros outfitted with Touch ID can use their fingerprint for entrance. It is important to know, however, that if you forget your password and cannot login with a fingerprint, you **will not** be able to open the document. Because of this, we recommend storing the password in a safe location.

Note: Locking features only work with encrypted documents.

Encryption

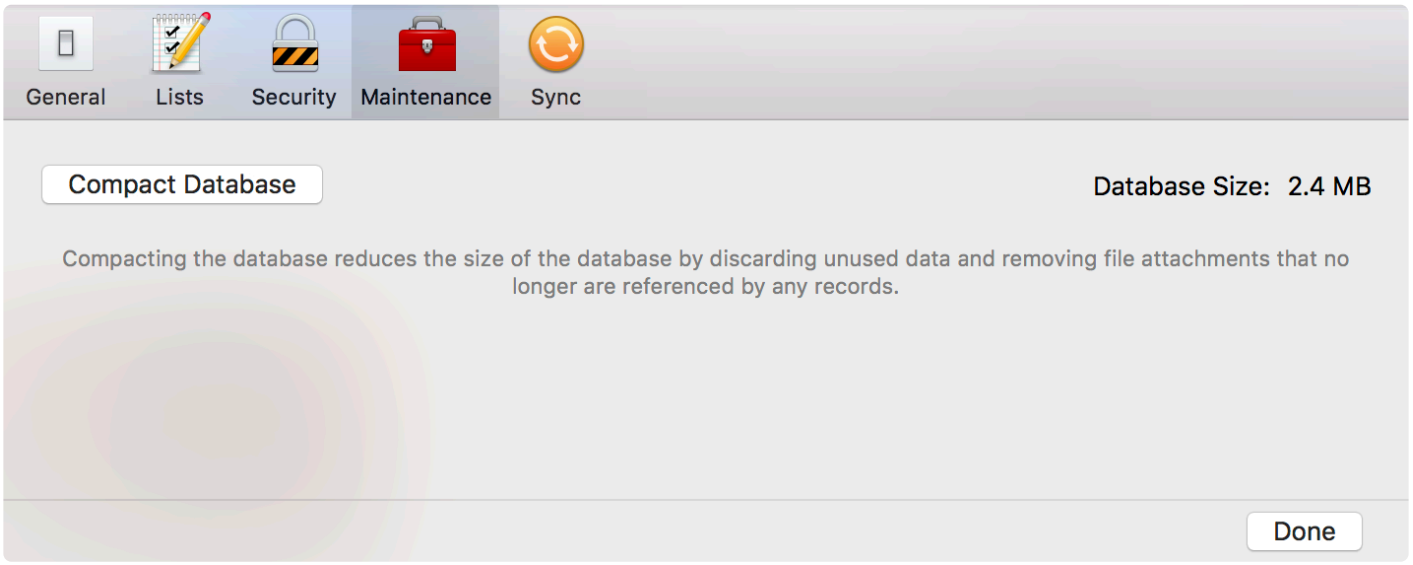
Encryption is a security technique that protects your data through a unique key that is unaccessible by any party but you. If you choose to encrypt your document, you'll use your passcode to log in to Tap Forms. With encryption, your database will be inaccessible to anyone else inside and outside Tap Forms.

✻ If you've forgotten your encryption key, launch the **Keychain Access** application on your Mac, search for Tap Forms, then double-click on the Tap Forms application password entry. Next, click on the **Show password** checkbox button. You'll be asked to enter your computer's password; then, you'll see your encryption key displayed. The Keychain Access application can be found by typing **Keychain Access** into the Spotlight search field or by launching it from the Utilities folder (which is inside your Applications folder) in the Finder.

! If you've forgotten your encryption key and you don't see it in the Keychain Access application, there's no way to recover your data. Make sure you never forget your encryption key or you have a copy of it stored in another secure location.

Last modified: Jun 07, 2018

17.4. Maintenance



The Maintenance section in Preferences is home to one critical feature: compacting your database. When you compact your database, you'll remove any unused data and attachments no longer referenced by records.

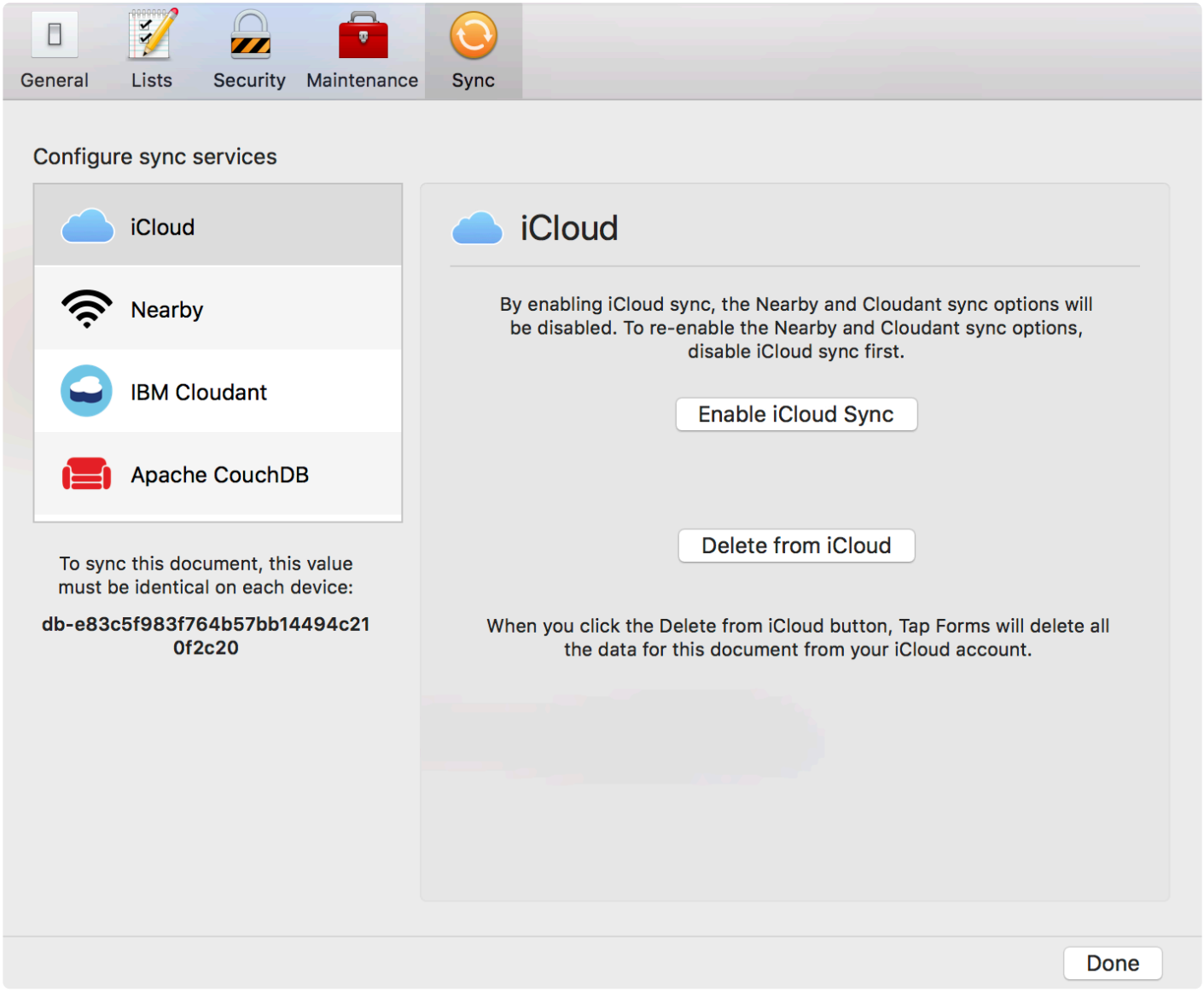
Although you'd think that deleting data always means removing its "space" from the app, that's not the case; instead, Tap Forms marks the previously owned space as available for new data, which is filled by forms and records. While this speeds up the use of the app, it can also cause the app to grow in size if you add,

delete, and repeat. Do that enough and Tap Forms can swell in size – but compacting the database can return Tap Forms to a more reasonable size.

All that's needed to create a small Tap Forms file is to click the "Compact Database" button. To the right is the total size of the database, which should immediately decrease after you perform the cleanup. The new number will be displayed, and will react as you continue to add data to the app. We recommend compacting your database periodically to keep the app clean and fast.

Last modified: Jun 07, 2018

17.5. Sync



Whether you're working between multiple macOS devices or keeping your databases consistent from your Mac to your iOS device, sync is a big part of Tap Forms productivity. In the Sync Preferences tab, you'll see each of Tap Forms' available sync options, which include Nearby, iCloud, IBM, or Apache CouchDB. Each of these sync possibilities is covered in detail in their respective articles under the "Syncing" category in this

guide.

In Sync Preferences is quick access to each of these sync options, including the processes to set them up. When you sync with one solution, Tap Forms will gray out the others to show you which option you've selected. After setting up sync on one device, the process is the same on any other versions of Tap Forms you own - navigate to the Sync portion of the app and setup your account with the same credentials.

Last modified: Jun 07, 2018