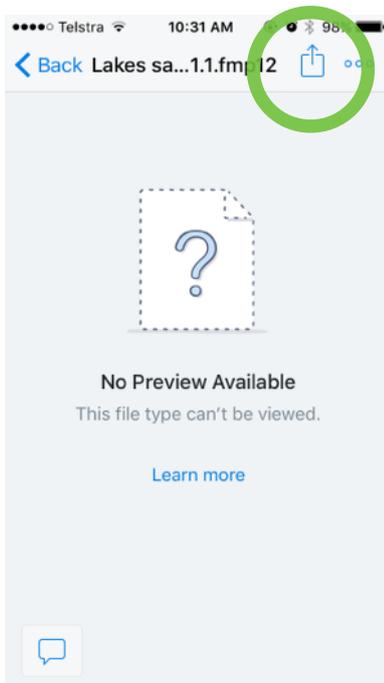


Field Sampling Database

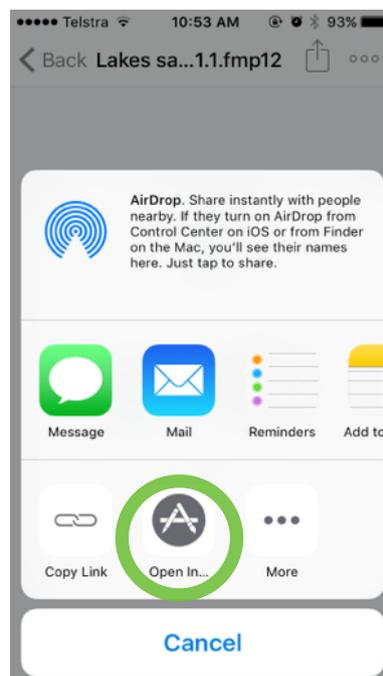
The Field Sampling Database (Hereafter called FSD) is a small Filemaker database designed to make sampling in the field easy. Its main purpose is the sampling of lakes and surface waters, but can also be used for other sample types. It is designed to run on recent iOS devices (iPad or iPhone) using Filemaker Go 14 (free download from the App Store). FSD is designed to record coordinates, photographs, sample information, water condition (pH, TDS, conductivity, etc), weather information, catchment and lake conditions, and other useful information. It can then export the collected data as PDF reports and as .csv, Excel, or other formats.

Installation

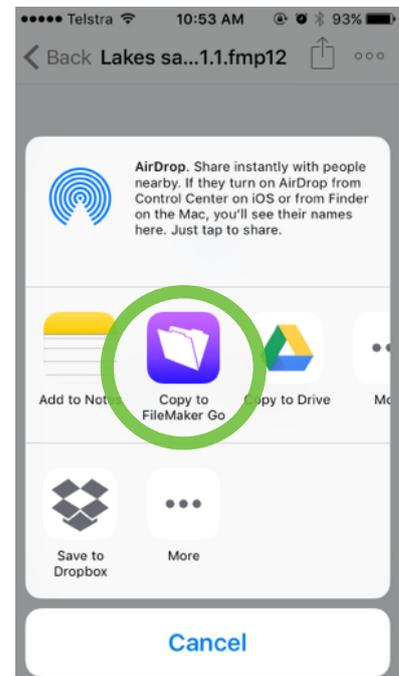
FSD requires an iPhone or iPad running Filemaker Go 14 (or possibly 13, but this is untested). To install FSD, either email the database file to yourself, or use Dropbox or similar. Select the file, and choose *Open in*. Filemaker Go should show as an option.



FSD loading in Dropbox.



Open in...

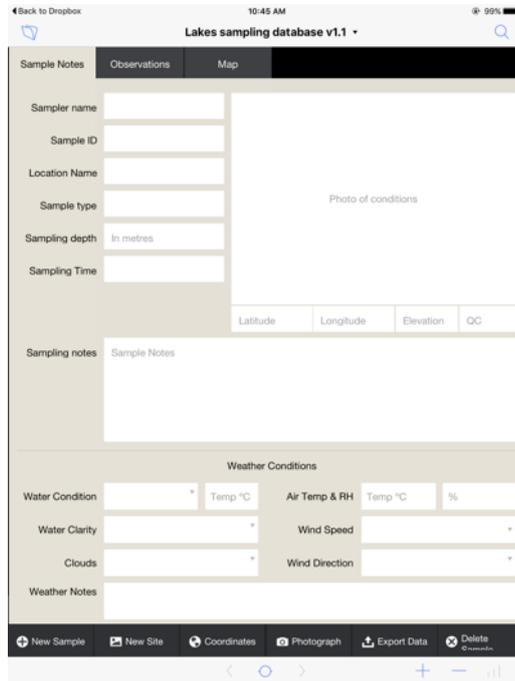


Filemaker Go

FSD should then load into Filemaker Go. Open Filemaker Go and it should open FSD with a layout appropriate for your device.

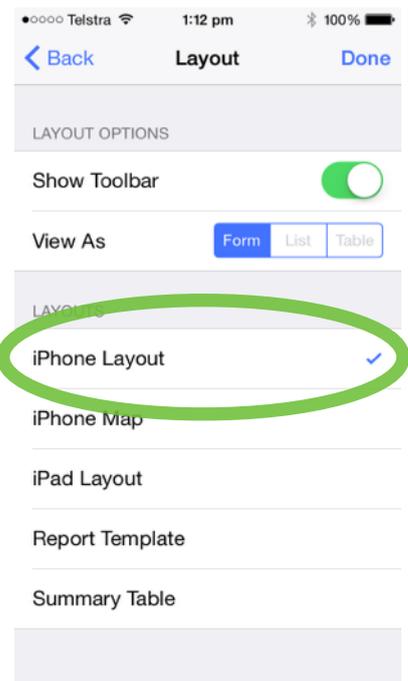
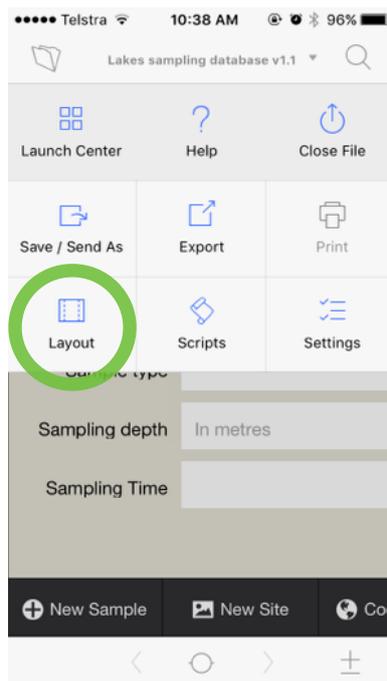
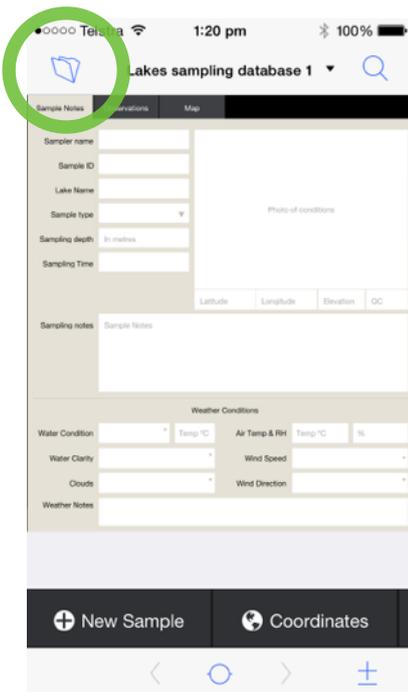


FSD on iPhone.



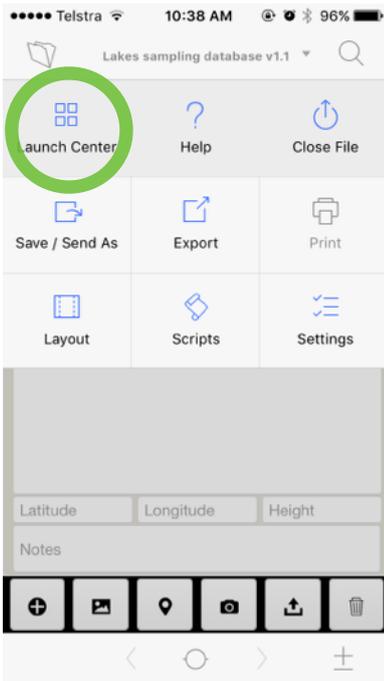
FSD on iPad.

If the layout appears “off”, then the iPad layout may have loaded on an iPhone, or vice-versa. In this case, open the *Filemaker menu*, select *Layout*, and choose the layout appropriate for your device.

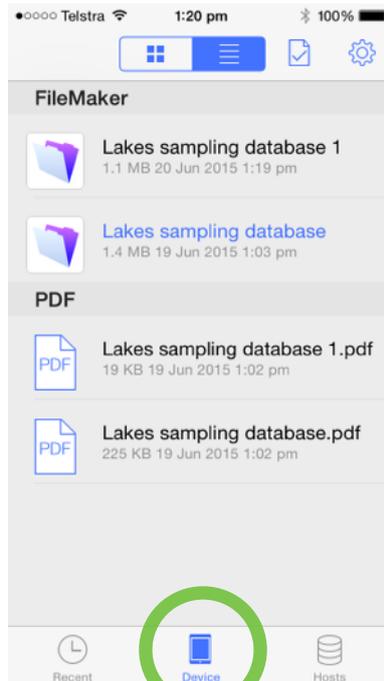


Incorrect layout loaded

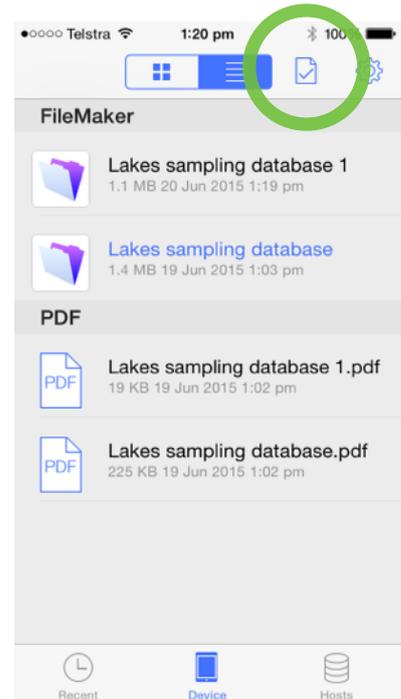
From the *Filemaker menu* you can also choose to save the database, export the data in another format and other options. Of particular note is *Launch Center* which allows you to manage databases on your device. To see what files you have on your device, select the *Filemaker Menu*, then *Launch Center*, then, *Device* on the lower navigation bar. To delete files, swipe them to the left. To email files, or upload them to Dropbox, select the file using the *selection* button and use the *Open in* button to send the file to another app.



Launch Center



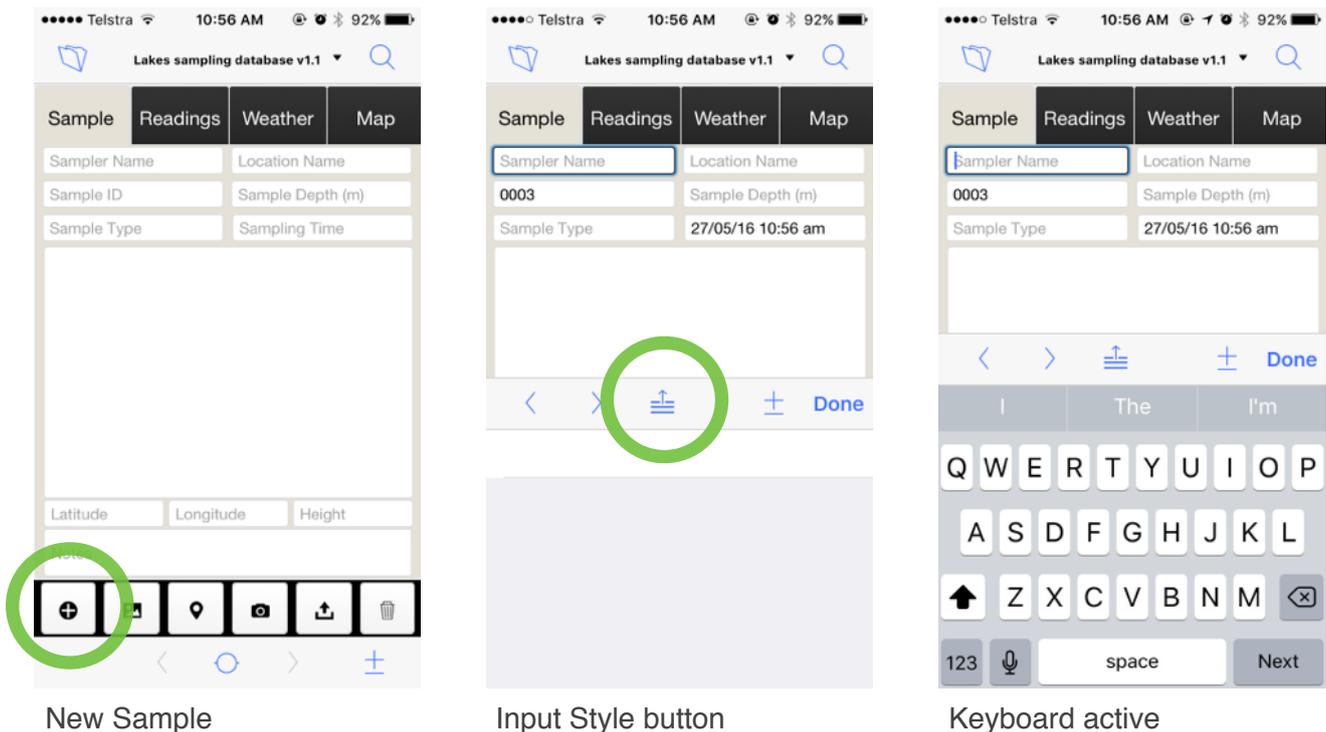
Device



Selection tool.

How to use FSD.

The database should initially have no records in it. To start, press the *New Site* button and start filling out fields. Some fields will not automatically have a keyboard come up, as they are designed to first provide a menu of likely entries (eg: Location and Sampler Names, Instrument ID. For these fields, press the *Input Style* button to access a keyboard. Once you have a few records in the database, then these menu fields will populate, making input much faster.



Most of the options in FSD are self explanatory. The two leftmost buttons are *New Sample*, and *New Site*. *New sample* allows you to record multiple samples from the same location, with data such as measurements and weather preserved for each new sample. *New Site* starts a new blank record. The *Waypoint* button activates the GPS and records your current location. The *Camera* button allows you to take a photo of the sample location. The *Map* tab shows your recorded location on Google Maps so you can confirm that your recorded position is correct.

A note on coordinates: Filemaker records coordinates in decimal degrees (WGS84). If you require degrees, minutes & seconds (DMS), or some other format, then you will need to convert the data after exporting the coordinates from the database, or for single use, the Google Earth Maps view will display coordinates in DMS.

The *Export Data* button will export two PDF files that you will be able to find on the device in Launch Center. The summary file simply lists basic sample information.

Sample ID	Lake Name	Latitude	Longitude	Height	Sample ...	Sample depth	Sampling Time	Sampler name
MA0004	Lake Leake	-37.611729	140.592388	104.321594	Water	0.1	23/05/15 11:12 am	Martin Ankor
MA0005	Lake Edward	-37.626787	140.602945	127.385864	Water	0.2	23/05/15 12:13 pm	Martin Ankor
MA0006	Lake Surprise	-38.058909	141.921098	85.015625	Water	0.4	23/05/15 3:44 pm	Martin Ankor
MA0007	Tower Hill	-38.315481	142.364280	29.406799	Water	0.1	23/05/15 5:22 pm	Martin Ankor
MA0008	Tower hill	-38.322950	142.370437	29.406799	Water	0.1	23/05/15 5:39 pm	Martin Ankor
MA0009	Lake Cartcarrong	-38.244707	142.456055	58.993042	Water	0.2	24/05/15 8:09 am	Martin Ankor
MA0010	Lake Elingamite	-38.350112	143.014189	134.733032	Water	0.1	24/05/15 9:51 am	Martin Ankor
MA0011	Lake Purrumbete	-38.281240	143.214682	154.085571	Water	0.5	24/05/15 10:45 am	Martin Ankor
MA0012	Lake Bullen Merri	-38.260232	143.095611	138.077148	Water	0.4	24/05/15 11:17 am	Martin Ankor
MA0013	Lake Gnotuk	-38.227653	143.102393	111.212952	Water	0.2	24/05/15 11:53 am	Martin Ankor
MA0014	Lake Tooliorook	-37.977324	143.283890	155.805298	Water	0.4	24/05/15 2:01 pm	Martin Ankor
MA0015	Rainfall Kaniva	-36.378122	141.235703	131.728455	Rainfall	0	31/05/15 12:37 pm	Martin Ankor

The full report file contains most of the information in the database.

Samples taken by: Martin Ankor

Sample ID	Lake Name	Sample Type	Sample Time
MA0004	Lake Leake	Water	23/05/15 11:12 am



Sampling depth	0.1m	Coords & QC	-37.611729	140.592388	104.3	26.0
Sampling notes	Lake drying rapidly. Probably ~2m drop since last visit. Water level -6.36 +/- 0.2 from top of wall out front of toilets. Sample taken with 6ft pole, then capped subsurface at shore.				Water Chemistry	
Catchment notes	Lake does visually appear approx 10-20m higher than surrounding landscape. Lake bottom very fine dark grey clay-silt. Pine plantations on southern side of catchment. Quarry and secondary overflow crater to north west side of lake. Farmland with some native vegetation along lake edge.				pH	
					TDS	
					DO	
					Cond.	
					PSU	
					Temp	

Weather Conditions

Water Condition	Calm	Air Temp & RH	12°C
Water Clarity	Clear (>2m visibility)	Wind Speed	Low (calm conditions. 1
Clouds	Partly Cloudy	Wind Direction	NE to SW
Weather Notes			

Of note is that the full report also includes all pictures taken. This can make that file rather large. It is recommended that as your database grows in size, you omit earlier records to avoid including them in later reports. Omitting records keeps them in the database, and as such is a better option than deletion of records. The best way to omit earlier records is to do a search for records that cover the timeframe required. An easy way to do that is to search for all records greater than the sample ID of the earlier work.

Use the *Search* button in the top right. Create a new find.

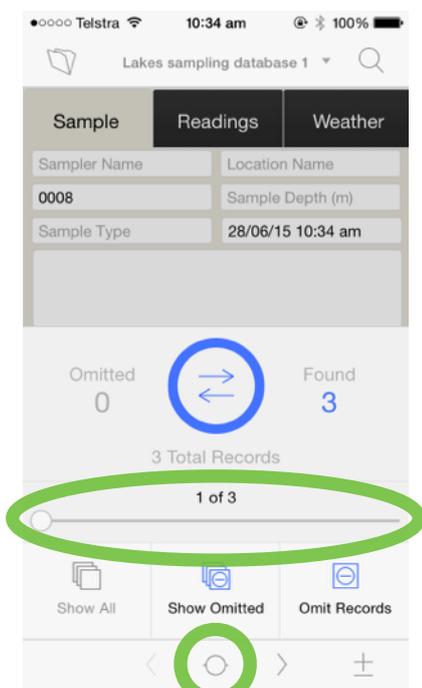
In the sample ID field type “>0005” and then search to find all records from 0006 onwards.

You can also choose to omit data based on sample type, name of sample, or any other field.

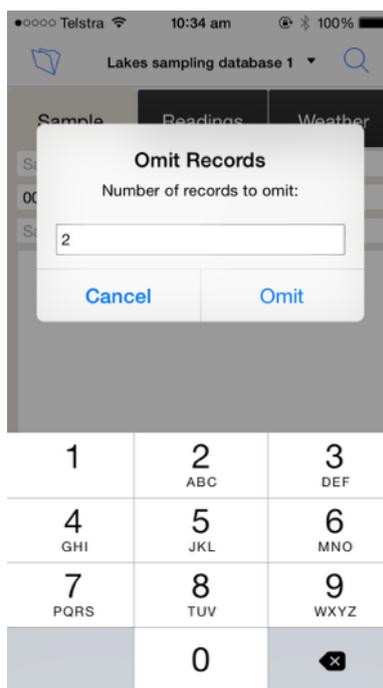
The *Records* panel will show found and omitted records.

Hit the *Records* button to minimise the panel and go back to the database.

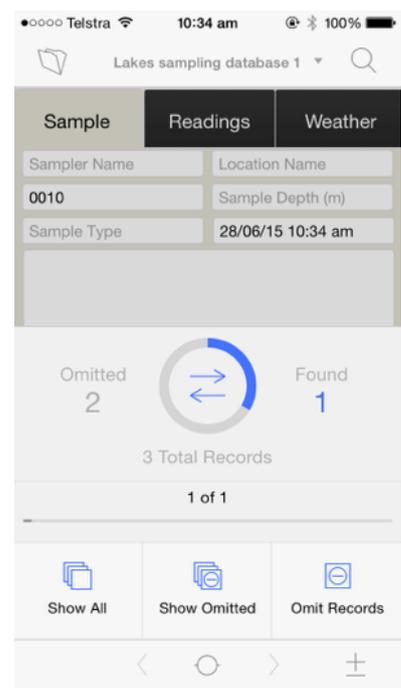
Another simple way to omit records, if you know how many you want to omit, is to go to the start of the database (using the slider in the *Records* panel. Then select the *Omit Records* button and type in the number of records you’d like to omit.



Records Panel



Omit 2 Records



2 records omitted.

Bugs

Filemaker may occasionally show the window from an older, cached database, even if that database has been removed from the device. To load the correct view, press on the database name at the top of the screen. Close the window, and reload the database from Launch Center.

