

SCATalogue Customization Guide



SCATalogue version 1.51

SCATalogue is an iOS app created by the California Department of Fish and Wildlife's, Office of Spill Prevention and Response (CDFW OSPR). The design, operations, and functionality of SCATalogue reflects this origin in many ways.

It is for the iPad only. It assumes the lack of cellular functionality on the iPad. It records data that can be California centric.

The basis for the SCAT data collection however is the standard, NOAA marine Shoreline Assessment paper form (SOS). A form generally used by all the states in the United States that collect shoreline SCAT data.

As such, an attempt is being made to provide some measure of customization within SCATalogue to make usage outside of California viable. The following will detail what customizations are possible, how to accomplish the customization, and what the future hopes and plans are in this regard.

Customization via side-loaded files

One of the first California specific items that you see in SCATalogue is the Segment ID. In general, This consists of three parts: county abbreviation, division letter, and segment code. California has 58 counties and for SCAT; CDFW OSPR uses a two-letter abbreviations for each county. Our division letters goes from A thru Z. Our segment codes goes from S000 to S999.



figure 1

Originally, the elements of Segment ID were hard-coded into the app. That meant that even though unlikely, if CDFW OSPR wanted to change the constituents of the Segment ID; we would have to make the change in the app's code, recompile and redistribute a new version of SCATalogue.

To get around this limitation, the ability to "side-load" some of these lists was added to SCATalogue. Currently, side-loading is done via direct connection of the iPad to a computer running iTunes. In a future revision we hope to add the functionality to side-load via Microsoft OneDrive, possibly Google Drive and/or Dropbox. We also plan to increase the side-loading content.

Currently, there are five files that can be side-loaded. Three are associated with the Segment ID mentioned above. These files are: SCATatalogueCounty.txt, SCATatalogueDivision.txt, and SCATatalogueSegment.txt. The elements of each are shown in SCATatalogue's segment ID picker in figure 1. Each segment ID picker element; county abbreviation, division letter, and segment code are shown left to right. An excerpt of the SCATatalogueCounty.txt file which is the source for the picker's left most county code is shown below.

AL-
AM-
AP-
BU-
CA-
CC-
CO-
DN-
ED-
FR-
GL-
HM-
IM-
IN-
KG-
KN-
LA-
LK-
LS-
MA-



There are thirty-eight more codes not shown. All files have one element per line. This is less computer efficient but much more human readable. Your codes could be three letters or more, etc.. You should not include special characters or embedded spaces. I have not tested the need for this, but you should probably include a trailing dash.

Snippets of the SCATatalogueDivision.txt and SCATatalogueSegment.txt files are below.

Your codes could be three letters or more, etc.. You should not include special characters or embedded spaces. You should probably include a trailing dash in SCATatalogueDivision.txt but SCATatalogueSegment.txt DOES NOT need a trailing dash.

SCATatalogueDivision.txt

A-
B-
C-
D-
E-
F-
G-
H-
I-

SCATatalogueSegment.txt

S000
S001
S002
S003
S004
S005
S006
S007
S008
S009
S010
S011

A snippet of the SCATologueStr.txt (the fourth file) is below.

No Further Action

Natural Recovery

Barriers/Berms

Physical Herding

Manual Oil Removal

Skimming

Booms

Low-Pressure

Ambient-Water Flushing

You should not include special characters. Embedded spaces, dashes, forward slashes here are okay.

The last file than be used to modify the SCATologue app is the SCATologueMapVectors.mmpk file. This is an ESRI mobile map package. (see <http://pro.arcgis.com/en/pro-app/help/sharing/overview/mobile-map-package.htm>) Recall, that SCATologue was designed to be used without cellular service so this provides an offline custom map. We are assuming at least a passing familiarity with ArcGIS and creation of the mobile map package will require ESRI's ArcGIS Desktop/Pro and possibly GIS staff.

Below are screenshots of the mobile map package displayed in SCATologue's map viewer. (figures 2 & 3) Left is zoomed out and right is zoomed in. During the creation of your map package you can choose the map layers, labels, etc.. You can customize the zoom level to turn ON or OFF specific layers and labeling. In CDFW OSPR's, for example, we do not show our pre-defined segments until the user is zoomed in.

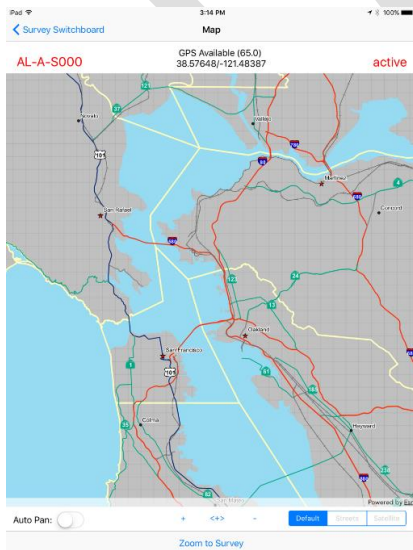


figure 2



figure 3

You can use these five files described above to customize SCATalogue. To accomplish this we need to side load this data using the iTunes software. We are assuming at least a passing familiarity with iTunes / iOS. Below is a screenshot of iTunes and my iPad connected via USB to my computer (figure 4).

In the Isaac's OSPR iPad -> Apps section, I can scroll down to see the SCATalogue app. Once, I select SCATalogue in the listing of apps, SCATalogue's documents will appear on the right. Note the five highlighted files. These are the same ones mentioned above as being customizable.

You can download the file files by clicking the "Save to..." button. Examine these files and use as templates to create your own substitute files. Your customize files must have exactly the same filename(s). The content format should be the same but can of course have different values.

Except for the SCATalogueMapVectors.mmpk, all the files are plain text with one entry per line. The mmpk file can include any layers that do not any special requirements (eg. no references to online data). This mmpk is an offline map. The larger this file, the more taxing on the app to draw. CDFW OSPR has statewide counties, major roads, major streams, major cities, major railroad lines and our shoreline segments. All this in the mmpk amounts to about 25 megabytes and seems to perform well.

NOTE: DO NOT DELETE OR MODIFY IN ANY WAY THE FILES: SCATalogue.sqlite, SCATalogue.sqlite-shm, or SCATalogue.sqlite-wal.

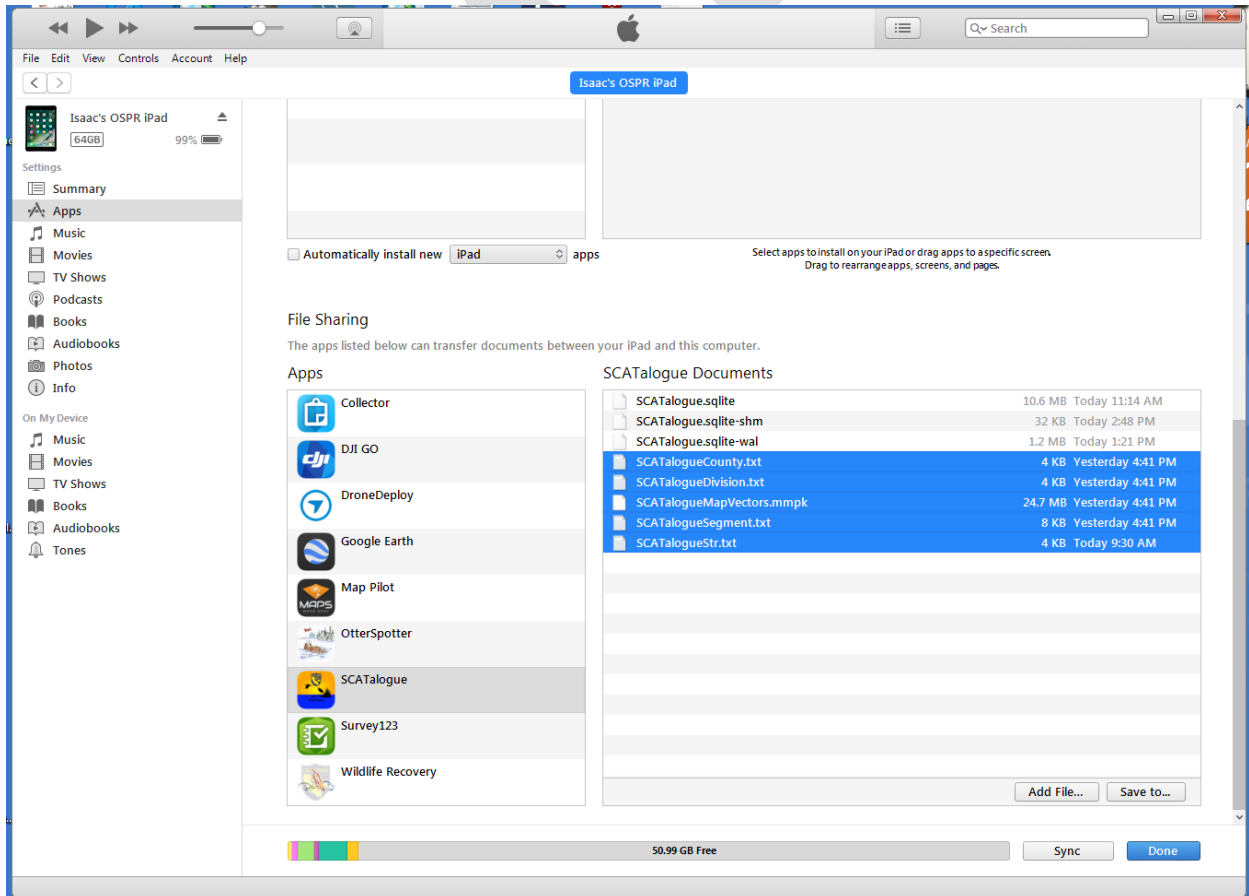


figure 4

Once you have suitable customized replacement files, you highlight the original file(s) in iTunes then press the delete key. Press, the Sync button in iTunes to sync this deletion. Click, the “Add File..” and select your replacement files then press the Sync button in iTunes to put these replacement files on your iPad.

There are probably other ways to adapt SCATalogue and its data output for your own usage. A lot may depend on following a different protocol, etc... There is possibly, the least optimal but still possible; the mapping of and post processing of SCATalogue data elements to your own specific data element. For example, on the Segment form there is a checkbox labeled, “Entire Segment Surveyed”. If you do not have pre-defined segments or are not using shoreline segments, then this checkbox can be mapped to any of your own data fields that is a true or false value.

As stated on page two of this document, we hope to make side-loading easier by using Microsoft OneDrive, etc... and also increasing the content that can be side-loaded.

NOTE: DO NOT DELETE OR MODIFY IN ANY WAY THE FILES: SCATalogue.sqlite, SCATalogue.sqlite-shm, or SCATalogue.sqlite-wal.

Customization via SCATalogue’s “Options” form.

Currently, there is only one element there; the default send to: email address.

If you have not already filled in a value, then the default is “@wildlife.ca.gov”. Basically, most of the address pre-entered if you are a CDFW employee. The actual send to: address is not fully filled in so that CDFW does not get unsolicited emails by default. Once, you set this email address and navigate away from the options form, the value is saved.