

Park Observer Protocol: Loons Monitoring

Table of contents

Introduction	3
Installing Park Observer 2.0	3
Installing a new obsprot	3
Background map	4
Starting a new loons survey	4
obsprot development/editing	4
obsprot development notes	5
Example survey session	6

Introduction

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Introduction

This document describes Arctic Inventory and Monitoring Program's field data collection methods using the National Park Service, Alaska Region's Park Observer 2.0 ipad.

For information on the ARCN loons monitoring program please see xxxx

For information about Park Observer 2.0 please see xxxxx

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Installing Park Observer 2.0

Installing Park Observer 2.0

Obtain PO2 at <https://akrgis.nps.gov/apps/observer/downloads2/> and follow the installation instructions

General information about PO2 can be found at <http://akrgis.nps.gov/Observer/>

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Installing a new obsprot

Installing a new obsprot (Park Observer 2.0 field data collection protocol) on an ipad

Introduction

A Park Observer Protocol, hereafter referred to as an obsprot, defines a field data collection model. See <https://akrgis.nps.gov/apps/observer/index.html> for detailed information.

Load the obsprot into Park Observer

Open ipad and connect to computer. Start itunes. Ensure the ipad and itunes are communicating. In itunes click File Sharing. Select Park Observer 2.0. Drag or navigate to your obprot. Ensure it appears in the list of Park Observer Documents. Click Sync.

Test the new obsprot

Open Park Observer 2.0 (PO2) Tap the circle thingie in the upper left corner. The new obsprot should appear under Protocols: Create a new survey.

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Background map

Background map

See

<http://akrgis.nps.gov/Observer/help2/#new-map>

Alaska Albers did not seem to work but Web Mercator did.

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Starting a new loons survey

Starting a new loons survey

Hit the Tracklog button (?) to start a survey

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obsprot development/editing

obsprot development/editing

The main PO2 website has a little information on developing a new obsprot. Unfortunately, the information is scant and trial and error and studying the sample obsprots is really the only way to learn.

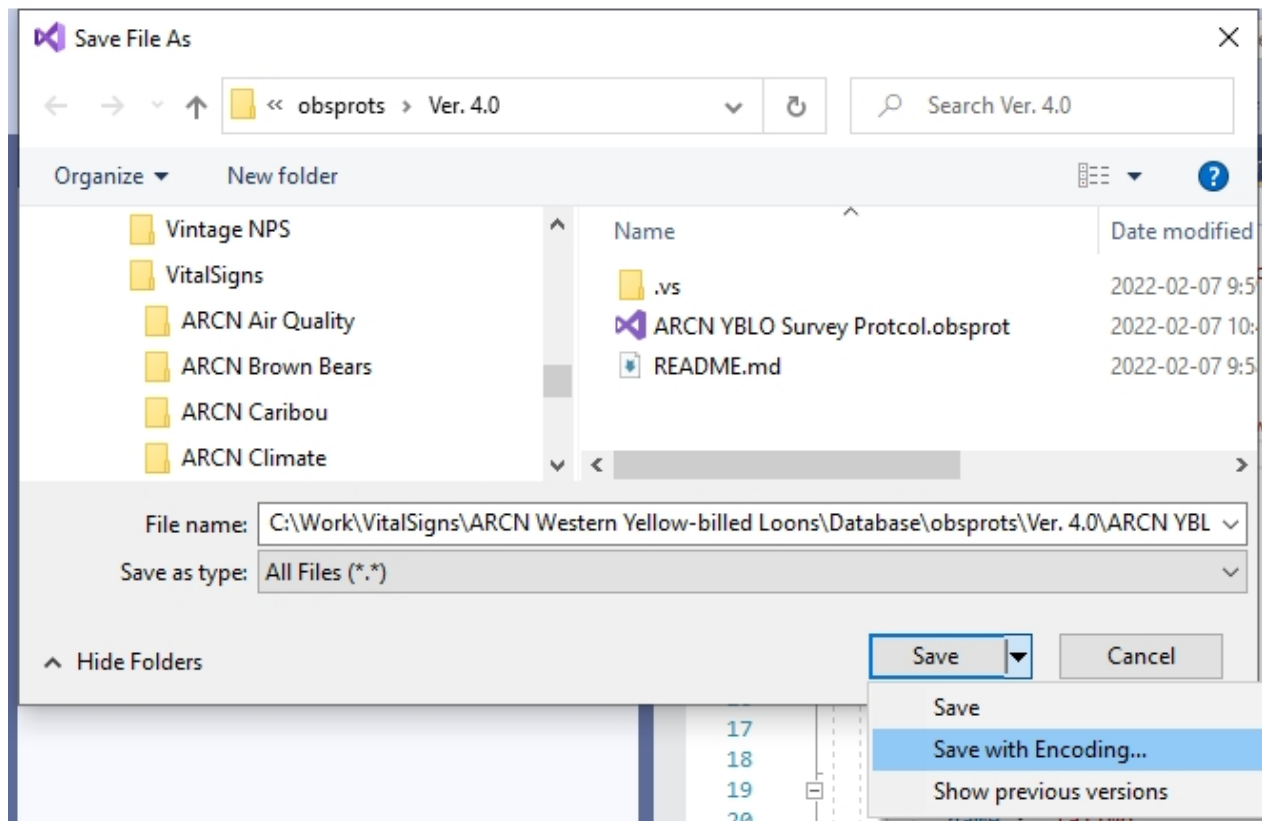
See https://akrgis.nps.gov/apps/observer/specs/Protocol_Specification_V2.html.

Tips

- The code must be perfect. Error messages are usually arcane and unhelpful.
- Validate the JSON before testing.

Encoding as UTF-8

The PO2 protocol development documentation states that obsprots should be encoded as UTF-8. Here is how I encoded it using Visual Studio. I did a Save as... and in the lower right corner next to the Save button there is an up arrow that allows you to change the encoding. Select UTF-8 With Signature (I actually don't know what the signature part is but this is what I read on the internet).



Hard close Park Observer between protocol tests

PO2 seems to 'remember' old protocols, so if there was a previous error that you have fixed, you may still see the same error message unless you hard close PO2 (double tap home button and slide PO2 icon up).

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obsprot development notes

obsprot development notes

General procedure

Get the obsprot at <https://github.com/NPS-ARCN-CAKN/YBLO-Observation-Protocol-ObsProt>

Check out a copy

I found JSONEdit to be a fabulous tool for editing and maintaining valid JSON. Need to get on categorized software list.

Edit JSON

Connect to the ipad using iTunes

ipad - delete any existing surveys and protocols so it's all blank

ipad - hard close PO2 (it seems to 'remember' old protocols, so if there was an error you will still get error messages, even if you've loaded a new valid obsprot).

drag a new obsprot onto the ipad

re-open PO2

create a new survey by tapping on the protocol

tap on the new survey and test

if it works then commit the change with documentation

edit - test - commit until done

Example survey session

Example survey session

Wildlife biologist Bugs Bunny is preparing for a loons survey in western alaska.

Pre-survey

Bugs goes through the following list to prepare for the survey (*obsprot*, *observer-protocol*, is another word for a *Park Observer protocol*; *obsprot* is preferred in this documentation to explicitly differentiate it from the *loons monitoring protocol* document that defines the program as a whole):

Load the obsprot onto the ipad

- Prepare background map tile package (tpk; see PO2 website for help on this).
- Prepare backup materials such as paper maps, gps, etc. (to supplement the app or for redundant use if an ipad or the app fails).
- Ensure ipad has PO2 installed and tested functional (use the Sample.obsprot available on the PO2 website to test)
- Load background map into ipad
- Load loon survey obsprot into ipad (github address here)
- Open itunes.
- Connect the survey ipad.
- Click the ipad icon.
- Open File Sharing.
- Select Park Observer 2.0 under Apps.
- Delete any old protocols that could be confused with the newest version.
- Drag the newest version of the obsprot onto the Park Observer Documents panel.

Test the obsprot

- On the ipad open PO2.
- Tap the circle with the three sliders on it. This is the main controller for the app.
- Tap Protocols
- Tap the loon survey obsprot. The app should respond with 'Created new survey <obsprot name>' in green letters.
- Tap back to the main menu.
- Tap Your Surveys.
- Under Select a Survey tap <obsprot name>.
- Tap on the map to close the menus.
- Tap Tracklog
- Under Survey Info (mission properties) enter as much information as possible.
- Tap Save (the Save button may be hidden requiring you to scroll down).
- On the map will be
 - a button with a square on it - tapping this will close the currently running data collection session
 - a button with a rain cloud and a sun - tapping this will allow you to modify the Survey Info properties. Use infrequently - you might want to do this to make note of rapidly changing conditions during a plot survey)

- a +L (Loon) button - collect data about loon sightings.
- a +P (Pond [lake]) - collect data about extreme pond changes such as drainage, merging, etc.
- a +I (Incidental wildlife observation).

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