

# GEO-TRACKING

## TRACKING ROUTES, SYNCING COORDINATES

### OVERVIEW:

If you are taking photos with a device that does not have a built in GPS, you can add geographic coordinates to those photos by associating those images with a recording of your route from a device that has GPS capabilities. This is useful when you have a camera with no built-in GPS but you do have a cell phone with GPS capabilities or a stand-alone GPS device.

Because both your photos and the recording of your route include time information, the photos can look to a file of your route — a GPX file — and see where you were, when, and thus where you were *when each photo was taken*.

For this to work, the date and time on the device recording images and the device recording your route should be closely synced.

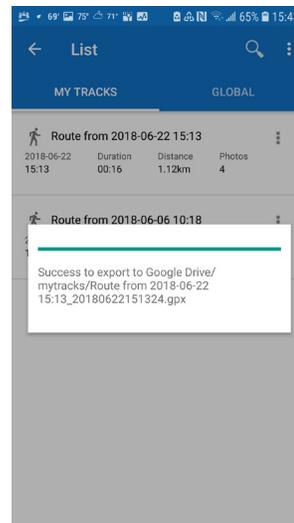
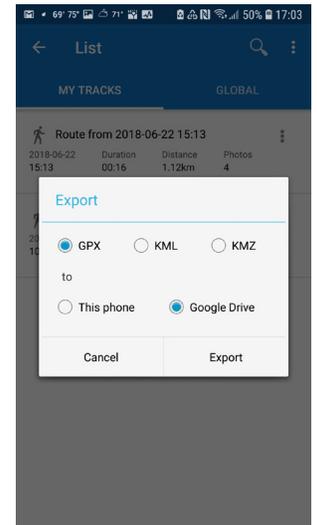
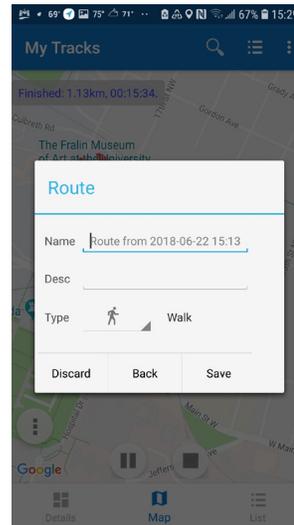


### CREATING A ROUTE:

There are numerous applications for Android and iOS that allow you to record geographical routes and export that information. Here we are using the app My Tracks for Android (myTracks for iOS). It is free and works well enough for our purposes.

Once you have synced your phone and camera clocks, hit the red record button on the My Tracks app. By default, the app will continue to record your route until you tell it to stop. Go for a walk, car trip, or jet ski ride and take some photos as you go (though please not while you're driving).

When you have finished your route and taking photos, hit the stop button. You will be prompted to give your route a name. Save the route. Now, go to the list of your saved routes, click the three dots next to your route and choose export. Choose GPX as your file-type, choose an export location, and hit export (I send it to my Google Drive account and then download that from my computer).



## ASSOCIATING ROUTE INFORMATION WITH IMAGES:

For this next step we will be using Adobe Lightroom to associate our route information with the photos we have taken, thus giving our photos GPS coordinates.

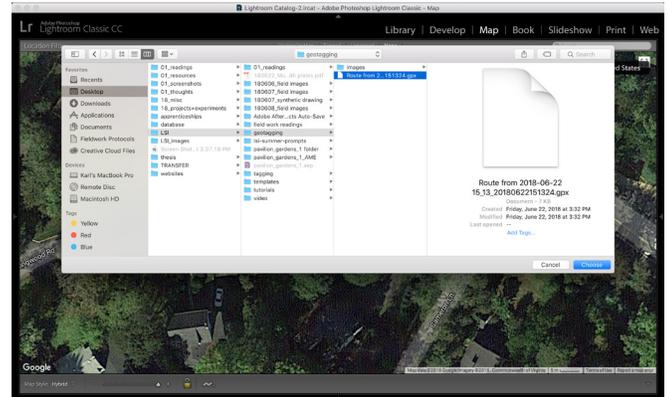
Download the GPX file you exported from your tracking app and save it in a logical location.

Once you have imported the photos that you want to geo-locate into Lightroom, go the **Map** tab. Click the jagged-line icon at the bottom of the window and choose **Load Tracklog....** Your route should display on the map as a blue line.

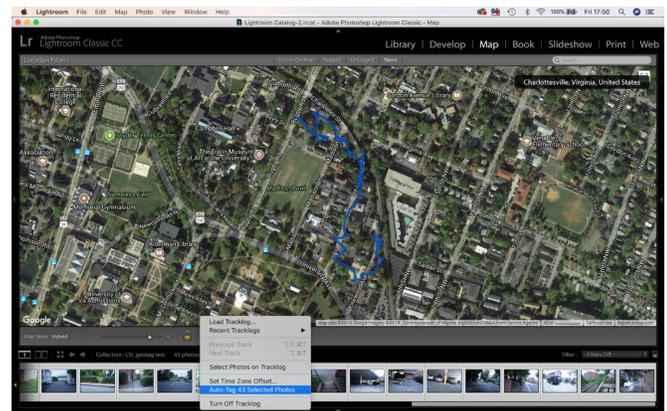
Now, select all of the photos that are associated with this route. If they are not visible, click the small rectangle at the bottom of the window and your photos will display in a filmstrip view. Click the jagged-line icon again and choose **Auto-Tag # Selected Photos**.

If everything is working correctly, your photos should now have GPS coordinates based on the route we loaded in and their own time-stamps. As most cell-phone GPS chips are not super-accurate, and no GPS is very accurate indoors or under heavy canopy, you may now want to make some manual adjustments.

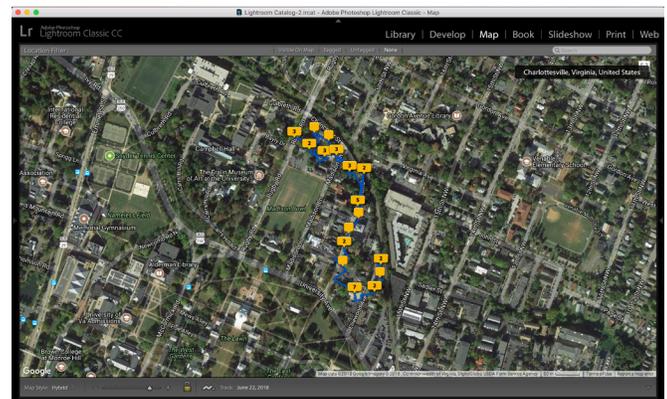
If you realize that your cell phone (or GPS unit) time and camera time were not in sync, you can adjust for this discrepancy by going to **Map > Tracklog > Set Time Zone Offset...** and typing in the difference between the time on your GPX file and the time on your image files.



Choose the GPX file of your route.



Auto-Tag the selected photos



Images associated with track-log data.