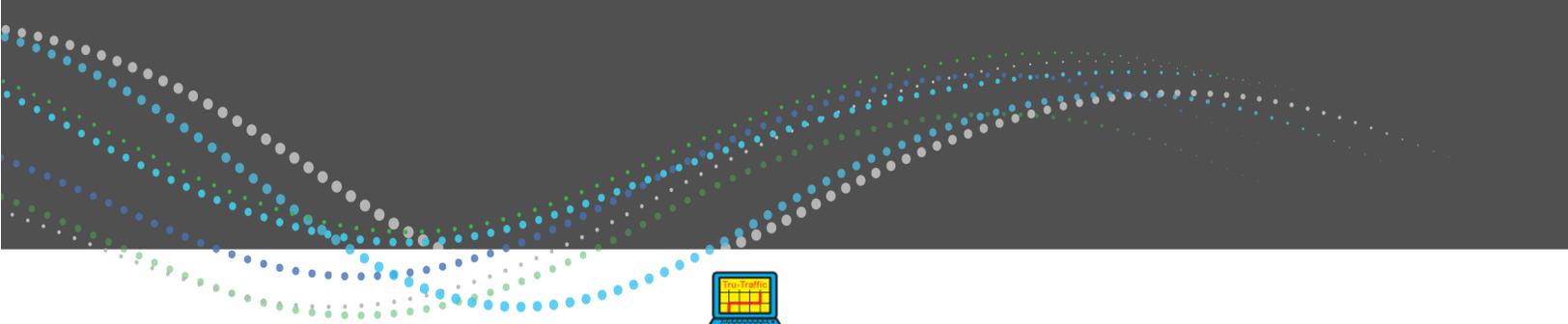




Instructional Guide Mobile Travel Time Data into Tru-Traffic

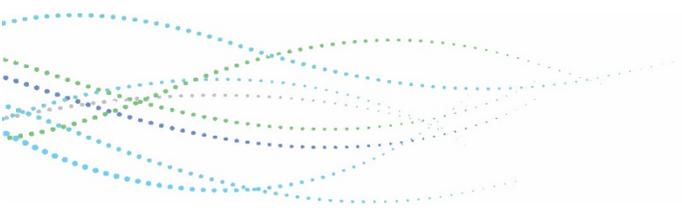


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1 APPLICATIONS NEEDED

1.1 iOS Users: Download the GPS Tracks Mobile Application

This application works on an iPhone, iPad, Mac, and Apple Watch. The Pro version, which is subscription-based, is not necessary to conduct travel time runs. If the application is being used for the sole purpose of conducting travel time runs, you will not need the Tru-Traffic file or any supplemental equipment other than the device that the application resides on.



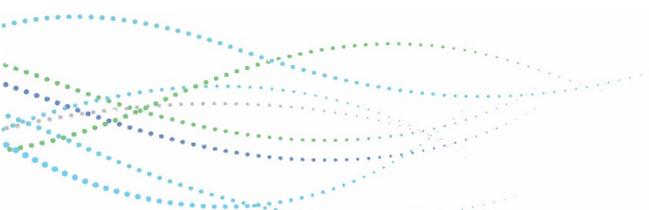
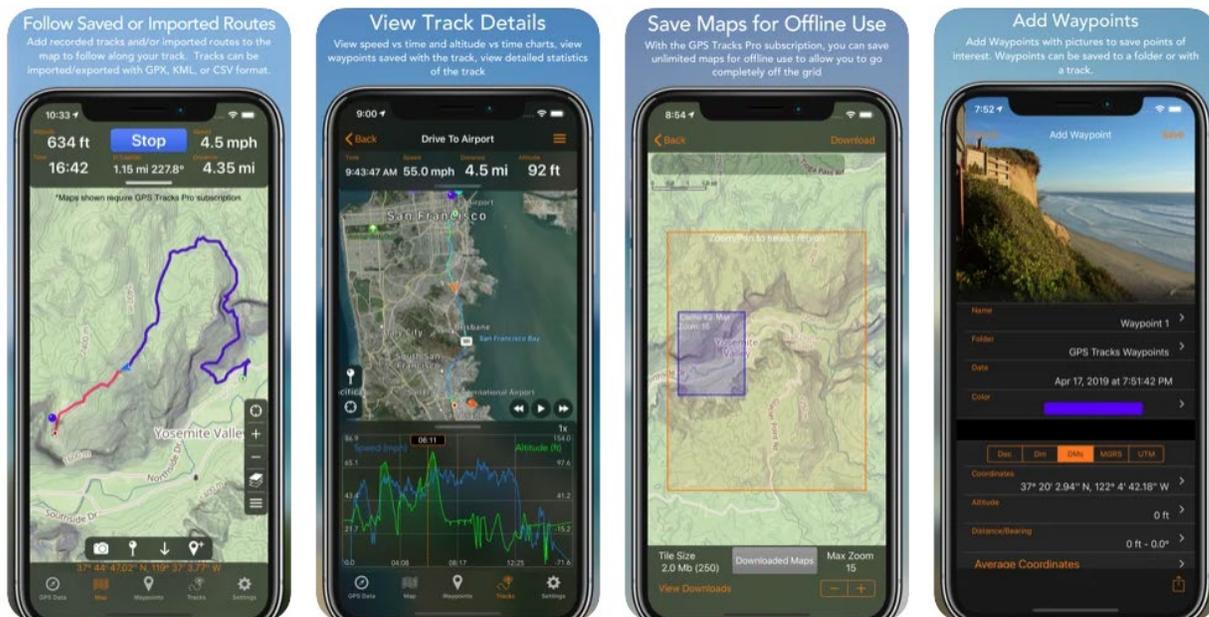
NOTE: There is a one-time cost associated with downloading the application.

1. Navigate to the Apple AppStore. Search 'GPS Tracks'.
2. Download the Application.
3. You are ready to go into the field and use it for travel time runs!



GPS Tracks 4.4
GPS Tracker and Offline Maps
David Morneault
Designed for iPad
#17 in Navigation
★★★★★ 4.7 • 4.9K Ratings
\$3.99 - Offers In-App Purchases

<https://apps.apple.com/us/app/gps-tracks/id425589565> [apps.apple.com]



1.2 Android Users: Download the Geo Tracker Mobile Application

This application works on Android devices. If the application is being used for the sole purpose of conducting travel time runs, you will not need the Tru-Traffic file or any supplemental equipment other than the device that the application resides on.

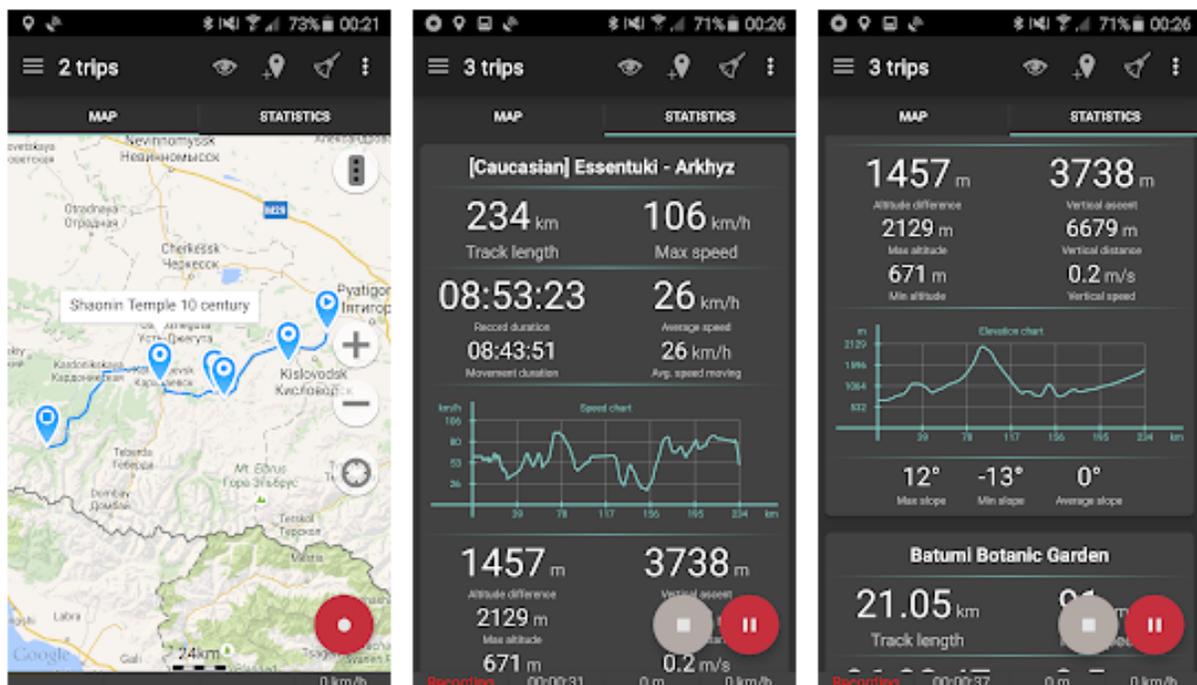


NOTE: There is no cost associated with downloading the application.

1. Navigate to the Google Play AppStore. Search 'Geo Tracker'.
2. Download the Application.
3. You are ready to go into the field and use it for travel time runs!



https://play.google.com/store/apps/details?id=com.ilyabogdanovich.geotracker&hl=en_US&gl=US



2 MOBILE APPLICATION USAGE & EXPORT INSTRUCTIONS



User Tip: Prior to using the app for project work, you are strongly encouraged to perform a test run to ensure the app works. Ensure you are familiar with the functionality of the applications and how to import correctly before using for actual project work.

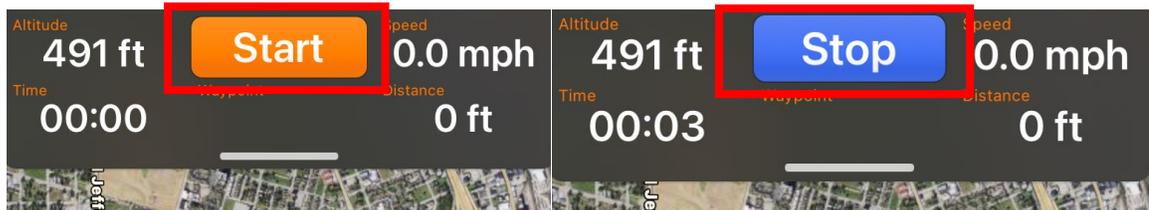
2.1 Recording a Trip

STEP #1: START YOUR TRIP

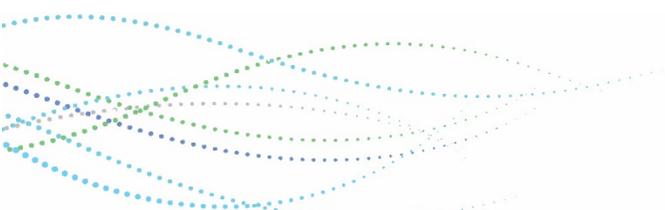
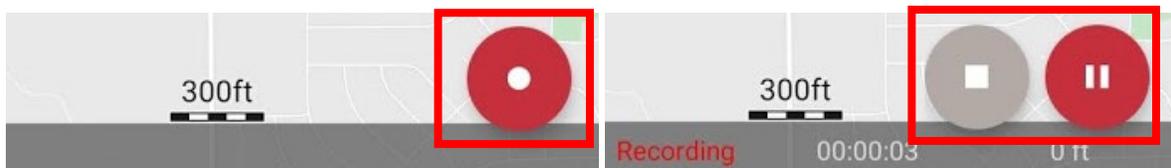
Be sure you are at your preferred starting point. Be sure to start well outside of your study area in a safe location such as a parking lot. You want to ensure that data points are gathered prior to entering your study area. To record a track (trip), ensure you have the GPS Tracks or Geo Tracker mobile application open. After the application is open and you are at your preferred starting point, simply press the “Start” button.



GPS Tracks {iOS Application}: Open the application, select start from the top menu. Once ‘Start’ is selected, you should see it switch to the ‘Stop’ option. You are now recording your run. Proceed with trip.



Geo Tracker {Android Application}: Open the application, select the red start button from the lower right corner. Once ‘Start’ is selected, you should see a ‘Stop’ and ‘Pause’ button. If you cannot see these buttons, tap the map. Proceed with the trip.

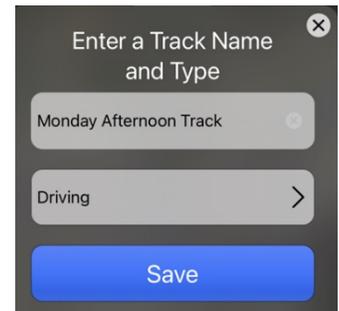
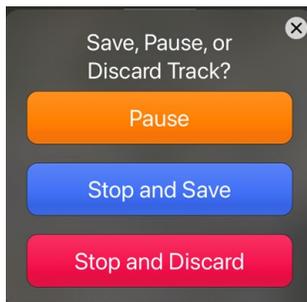


STEP #2: STOP YOUR TRIP

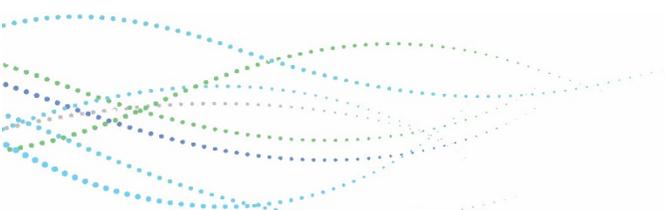
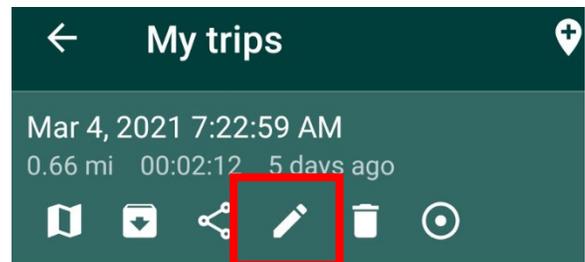
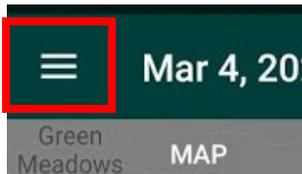
When you have finished your trip, press the stop button. Be sure to stop well outside the limits of your study area. It is better to go well beyond the end point than to be too close.



GPS Tracks {iOS Application}: Once you press the 'STOP' button, this will bring up a pop-up menu with the option to "Pause", "Stop and Save" and "Stop and Discard". You will want to select "Stop and Save" and label your run.



Geo Tracker {Android Application}: Once you press the 'STOP' button, the trip is automatically saved. It is named with the date and time of the trip. To see the trip, choose the hamburger icon (3 horizontal lines) in the upper left. You can choose the pencil icon to edit the properties if desired, but not necessary.



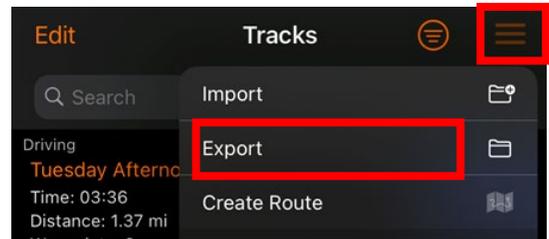
2.2 Exporting a Trip for Use in Tru-Traffic

You can export different file types – KMZ, KML, GPX, CSV, etc. For the Tru-Traffic analysis, it is easiest to export your trip as a GPX file. Exporting a .CSV file is optional – if that is the preferred export method, follow steps in Section 3.2 to correctly process the file.



GPS Tracks {iOS Application}:

1. Once your trip is complete, from the bottom menu, select 'Tracks'. Here, you will see a list of the trips you have conducted and saved.
2. You can either export all trips at one time or select an individual trip. Either way, select the icon with "three dashed lines" from the top menu bar on the right side. Select Export.
3. Select Export. Choose the desired export format. GPX is the easiest. If exporting a .CSV file, you will be asked to select the CSV file coordinate format. Select decimals.
4. Email the run to your email.
5. You should receive an email with your files. You are now ready to import into Tru-Traffic.



Geo Tracker {Android Application}:

1. Once your trip is complete, select the hamburger icon (upper left), and select the desired trip.
2. Choose the Share icon  and select the GPX format. Email the run to your email.
3. You should receive an email with your files. You are now ready to import into Tru-Traffic.

Alternatively, you can export all runs into a folder onto your device by following these steps:

1. Press the ellipsis (3 vertical dots) in the upper right.
2. Select the option to 'Export to folder'
3. Choose the GPX format and all active files will be saved to your device.
4. Connect your device to your computer via USB. Navigate to the folder on your device, 'My Document/MyMaps/gpx'.
5. Copy or cut the files from your device and move to your computer.



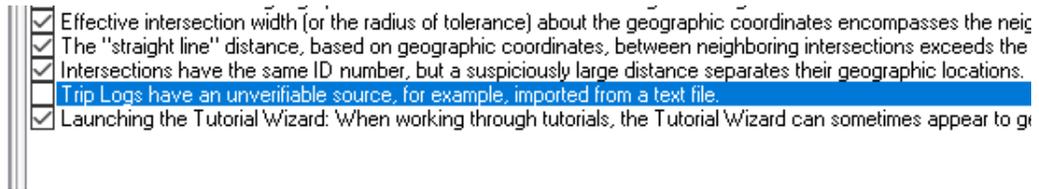
3 IMPORT AND PROCESS FILES WITH TRU-TRAFFIC



Before you import your trip logs, follow the steps below to ensure the (imported) stamp does not show on your runs. If you would prefer to leave the stamp 'as is' so that those runs can be identified, ignore this and proceed to the next step.

(imported) TuesdayAfternoonTrack

In Tru-Traffic, from the top menu, select View>Preferences > Warnings > uncheck the following:



3.1 Importing GPX Files into Tru-Traffic

Once you receive the GPX files via email, you are now ready to import and process the file. Save the file in the desired location.

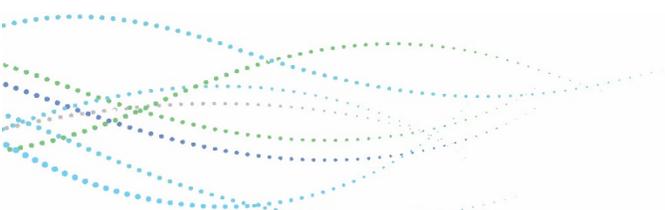


The following steps will apply to either the iOS or Android applications.

1. Launch the project Tru-Traffic file.



2. Select the 'View GPS' icon from the top menu.
3. Choose the 'Trip Logs' tab. Right click in the trip logs area and choose the option to "Import Trip Log".
4. Choose the file type, "GPS Exchange Format (*.gpx)"
 - a. Navigate to the folder where you saved your GPX files.
 - b. Highlight the file(s) you would like to import.
 - c. Select [Open] to import the files.
 - d. Depending on the source of the file(s), this can sometimes take a few minutes to import.
 - e. Once the files are imported, they can be utilized just like any other Tru-Traffic trip log/run.



3.2 Importing .CSV Files into Tru-Traffic

1. Open the project Tru-Traffic file.
2. Select the 'GPS View' icon from the top menu.
3. Select the 'Trip Logs' tab from the GPS View window.
4. Right-click in the 'Trip Logs' window. Select 'Import Trip Log'.
5. Navigate to your saved .CSV file. *NOTE: If you can not find your file, ensure the correct file type is selected in your file type drop-down window (to the right of the file name window). Select File. Select Open.
6. You will now see a window appear. **DO NOT SELECT 'OK'**. You will now set your parsing rules.



No. Header Lines: 1 Separator Character: Comma File Format Presets: Custom

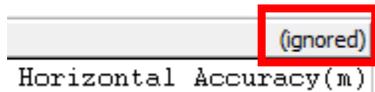
Trip Log Title Line: 0 Trip Log Starting Date-Time Line: 1

Date Format: YYYY-MM-DD Time Format: HH:MM:SS UTC (Coordinated Universal Time)

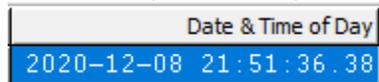
Date (GMT)	Date (Local)	Time (sec)	Latitude	Longitude	Horizontal Accuracy (m)	Altitude (m)	Vertical Accuracy (m)	Distance (m)	Speed (m/s)	Average Speed (m/s)	Course (deg)	Tr	
2-08	21:51:36.38	2-08 15:51:36.38	0	37.698485	-97.338178	30	369.1	57	0	0	3220367431641	0835571289062468088531	
3-08	21:51:37.27	2-08 15:51:37.27	28769636154175	37.698485	-97.338178	30	369.1	57	44091869603641	0	3220367431641	7847366333008.38206481	
4-08	21:51:47.38	2-08 15:51:47.38	5251339673996	37.698425	-97.338178	30	369	57	09012968761314	5222222222223	0	3220367431641	6470947265625.30682373
5-08	21:51:49.38	2-08 15:51:49.38	52209997177124	37.698330	-97.338179	30	368.8	57	37189909117251	3222222222223	0	3220367431641	6470947265625.30682373
6-08	21:51:50.38	2-08 15:51:50.38	52218294143677	37.698270	-97.338179	10	368.7	19	04379567197716	1777777777778	0	3220367431641	6470947265625.30682373
7-08	21:51:51.28	2-08 15:51:51.28	42639195919037	37.698215	-97.338179	10	368.5	19	14943562651457	1777777777778	0	1047973632812	6470947265625.30682373
8-08	21:51:52.56	2-08 15:51:52.56	70807194709778	37.698150	-97.338179	10	368.3	19	3838470176017	9111111111111	0	1047973632812	6470947265625.30682373
9-08	21:51:53.38	2-08 15:51:53.38	51908898353577	37.698095	-97.338200	10	368	19	76934443521198	9111111111111	0	1047973632812	6470947265625.30682373
10-08	21:51:54.39	2-08 15:51:54.39	52953898906708	37.698035	-97.338200	10	368.2	19	4493593275748	2188888888889	0	1047973632812	6470947265625.30682373
11-08	21:51:55.38	2-08 15:51:55.38	52580797672272	37.697980	-97.338200	10	368.1	19	57198917872095	3222222222223	0	1047973632812	6470947265625.30682373
12-08	21:51:56.40	2-08 15:51:56.40	54375195503235	37.697925	-97.338200	10	368.2	19	69461902986711	3222222222223	0	1047973632812	6470947265625.30682373
13-08	21:51:57.40	2-08 15:51:57.40	54383897781372	37.697875	-97.338200	10	368.5	19	26084734534075	3222222222223	0	1047973632812	6470947265625.30682373
14-08	21:51:58.37	2-08 15:51:58.37	5160299539566	37.697825	-97.338200	10	368.7	19	82707566081439	8777777777778	0	1047973632812	6470947265625.30682373
15-08	21:52:00.37	2-08 15:52:00.37	51883792877197	37.697760	-97.338200	10	369.1	19	06273554813846	5222222222223	0	1047973632812	6470947265625.30682373
16-08	21:52:08.38	2-08 15:52:08.38	51948094367981	37.697710	-97.338200	10	368.3	19	62815240091875	1777777777778	0	1047973632812	6470947265625.30682373
17-08	21:52:10.38	2-08 15:52:10.38	52032291889191	37.697645	-97.338200	10	368.1	19	86381228824283	1977777777778	0	180	6470947265625.30682373
18-08	21:52:11.37	2-08 15:52:11.37	51624798774719	37.697590	-97.338200	10	368.2	19	98570442869878	8777777777778	0	180	6470947265625.30682373
19-08	21:52:12.38	2-08 15:52:12.38	51913499832153	37.697530	-97.338200	10	368	19	6643669544332	1777777777778	0	180	6470947265625.30682373

Setting Parsing Rules

1. For setting the parsing rules, it is convenient to temporarily tell Tru-Traffic that there are 0 header lines. That way Tru-Traffic shows the file's column headers for you in their respective columns while you are indicating which columns to import, and how, and which to ignore.
2. Set the following parsing rules to properly process the .CSV file (you should only have to complete this step one time in Tru-Traffic, the same rules will apply to future imported files). To set these rules, you will need to 'left-click' on the appropriate column and map as shown below (For all other columns, not shown in a-d, select 'ignored')



- a. **Date & Time of Day:** either the Date (GMT) or the Date (Local), but not both and not Time(sec), and be sure to tell Tru-Traffic that the column has both, Date & Time, and declare the time zone appropriately. GMT is preferred (or UTC); Tru-Traffic will automatically convert to your local time zone.



- b. **Latitude & Longitude:** Select N. Latitude (deg), E. Longitude (deg)

N. Latitude (deg)	E. Longitude (deg)
37.698485	-97.338178

- c. **Speed:** the (instantaneous) Speed(m/s), not the Average Speed(m/s),

Speed (m/s)

- d. **Altitude (m):** Select the Altitude(m).

Altitude (m)
369.1

3. Then before you click OK, be sure to indicate that there is 1 header line. **Now SELECT 'OK'**.

No. Header Lines: <input type="text" value="1"/>	Separator Character: <input type="text" value=" , Comma"/>	File Format Presets: <input type="text" value=" Custom"/>
Trip Log Title Line: <input type="text" value="0"/>	Trip Log Starting Date-Time Line: <input type="text" value="1"/>	
Date Format: <input type="text" value=" YYYY-MM-DD"/>	Time Format: <input type="text" value=" HH:MM:SS"/>	UTC (Coordinated Universal Time)

