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**Tension Software**

# Geo WPS 1.2

## User Guide



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# Welcome to Geo WPS

## GPS without GPS

Geo WPS is a Cocoa application that let track your current position using Apple geo-tracking implemented natively on macOS.

It displays the position of the mac showing it in a map, continuously updated, without using a GPS.

To work, the Mac requires a internet connection, using a bluetooth cell phone as modem is ok or also a usb internet key.

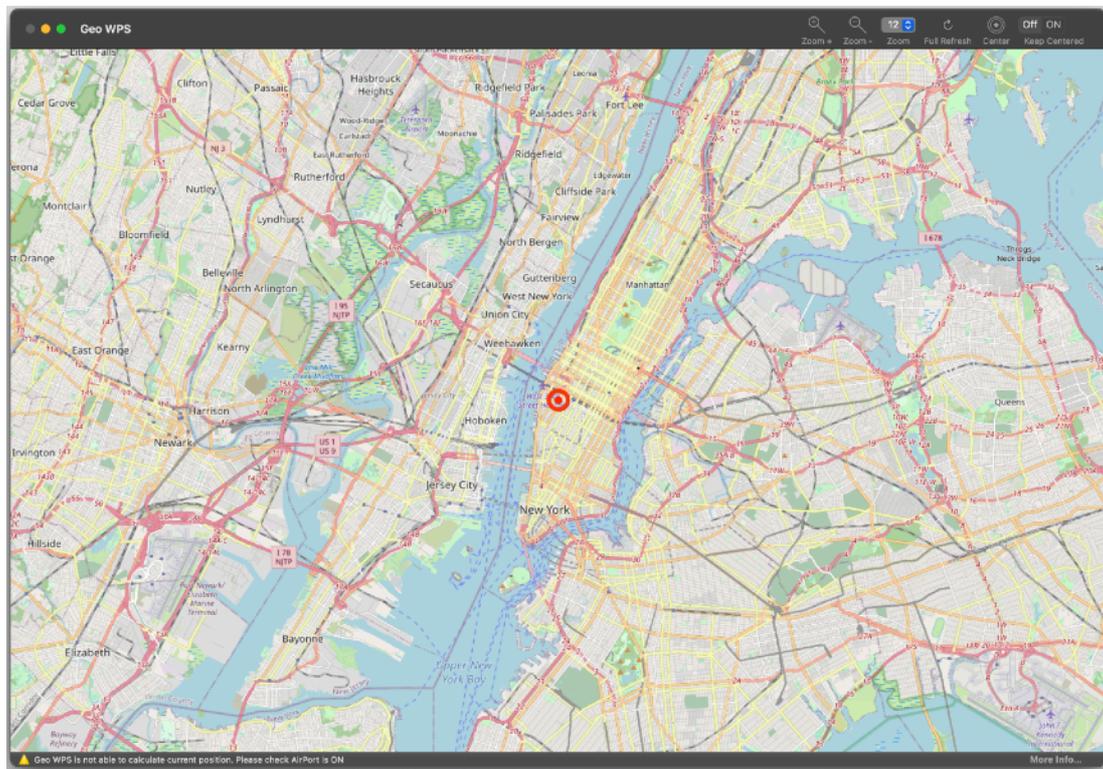
The Mac requires also airport turned on to let wi-fi geo-tracking to work. It doesn't need to be connected to any wi-fi point to work, it just has to be on to let it recognize the wi-fi around and from them calculate your position (without connecting to them) It does not require a GPS to calculate your position and it works even when you are in closed environments and a GPS can't work at all.

Position is calculated showing also the circle of your possible position with max error in calculating your position (experience tells that often despite the possible error, your position is calculated with great precision)

### **WARNING:**

**Do not use Geo WPS for purpose where the wrong calculation of your position can generate any kind of damage to objects or persons.**

**Geo WPS was not intended for that 'critical' use!**



# Getting Started

## Easy of use

Geo WPS is plain simple to use.

Launch it and it will start to calculate your current position showing it on a OpenLayer Map

To do it, Geo WPS detect any wi-fi around the Mac (without the need to connect to them) and calculates your position using these data.

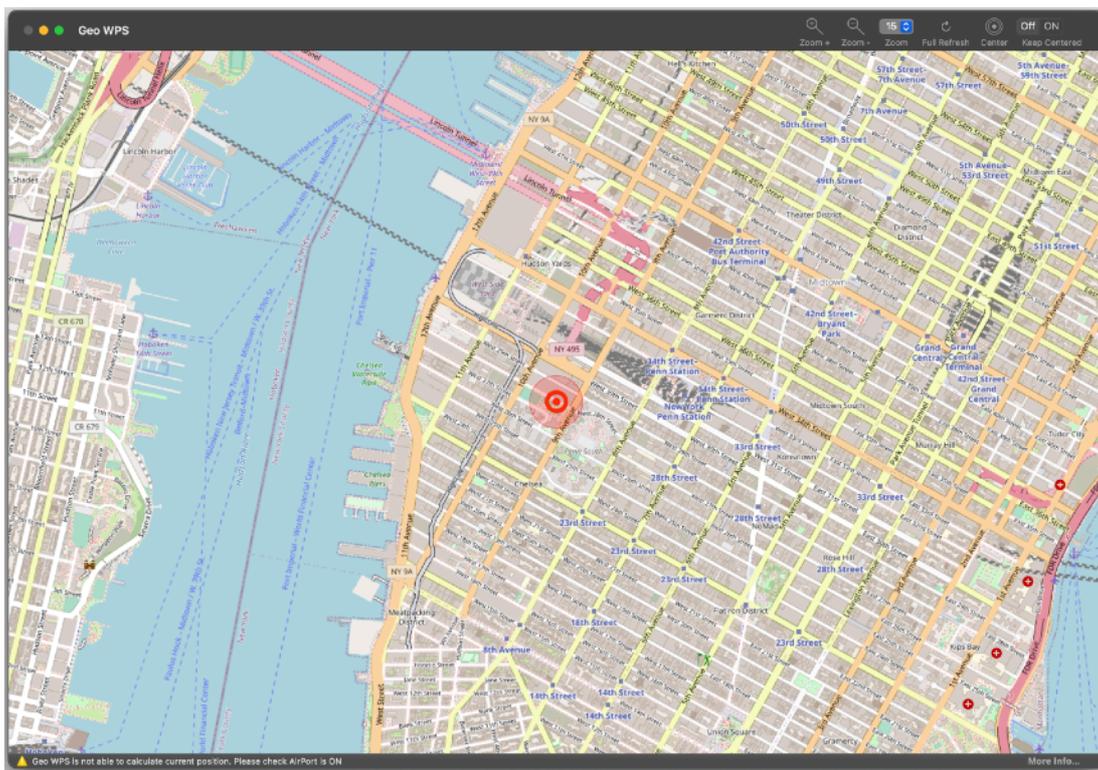
Calculation of the position requires an internet connection because the position calculation requires a query to a server (managed by an Apple Library on macOS).

Your position in the world is shown via an interactive Map.

You can zoom and move the map up to a 18 level zoom.

The data for the worldwide map are also pulled form the internet, so another reason you need an active internet connection. If you are on a vehicle as example, it would be OK using a usb internet key to provide an active internet connection.

To keep track of your moving position you can use the 'Keep Centered' feature to always maintain your position at the center of the screen and move the map under it.



# Reference

Geo WPS is a Cocoa application able to show your current position in the world  
To be able to do so Geo WPS uses the geo-tracking function implemented inside macOS

To work Geo WPS has to be run on a Mac connected to internet. Any kind of connection is OK.

Geo WPS needs airport wi-fi on your Mac to be turned on. It doesn't requires a wi-fi connection, you can be connected on the net via a bluetooth modem or via a USB internet key but airport on your Mac must be turned ON or geo-tracking won't work because it calculates your position based on all the wi-fi station it detects around, without connecting to them, just detecting their presence.

In case you are connected on the net via wi-fi it can work too.

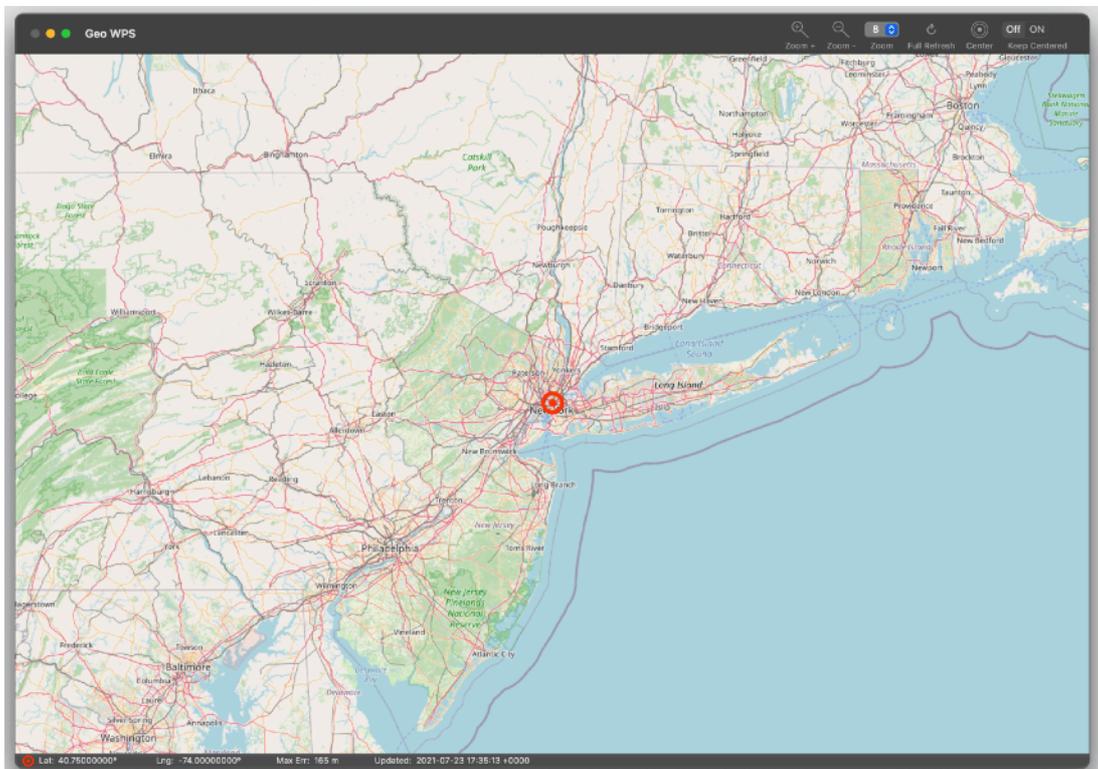
## Geo WPS window

The Geo WPS window is very simple.

It show the map of your current location and you can move in any place dragging on it with the mouse.

You can use different level of zoom (from 0 to 18) to view the map

In the bottom part of the window are displayed the coordinate of the current position and the max error in estimating the position



## Required Permission

Permission to calculate your position is needed by Geo WPS to show your position on map



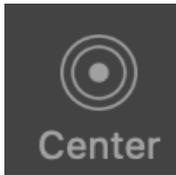
If you didn't give permission at first run, you need to do it in System Preferences > Security and Privacy > Privacy > Location Services

## Zooming on a Specific Area

To zoom on a specific area press the shift keyboard and maintaining the key pressed click drag and release to specify a rectangle on the map, the rectangle will be used to zoom on it in the map with the best zoom level adapted to the rectangle you specified

## Center on your current position

If you need to center your current position in the map, use the 'Center' command from the Tools menu or click the Center icon in the toolbar

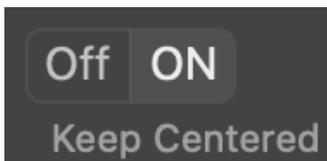


The map will scroll to the current position using the current zoom level  
Your current position is shown on the map using a circle red icon  
The semi-transparent circle around your current position show the possible error area. Your effective position can be inside the circle (the larger is the circle the more is the estimated possible error)



## Keep Centered

If you are on a vehicle your current position moves, to keep track of it you can select the 'Keep Centered' from the menu or from the toolbar  
You can select from the preferences to have the application start with the 'Keep Centered' feature turned on.



## Current Coordinate

The lower bar shows the current coordinate and the max error range in calculating it.

The user can change in the preferences the way the coordinate are displayed from 3 ways:

- 22° 35' 43.567"
- 25° 11.567671'
- 32.842365412°



## Max Error

Max error in detecting your current position is shown in the bottom bar.  
It can be shown in meters or feet changing the setting from the preferences

## Consideration about geo-tracking

WPS geo-tracking is based on wi-fi position calculation.  
It works only in areas where wi-fi station are present. If they are mapped by the geo-tracking database the algorithm is able to determinate your position.  
the method is not based on satellite system as GPS, so it works also in covered area in closed environments, the drawback is that it can't work in not urbanised area without wi-fi station in the zone. It works perfectly in dense constructions areas with a large presence of wi-fi stations as in any populated modern cities.  
This release 1.0 was tested in Milano and it works perfectly, updating position around any 100 m (300 feet) giving always a good approximation of the position. It works perfectly!

## Preferences

### General

Coordinate format:

The user can change in the preferences the way the coordinate are displayed from 3 ways:

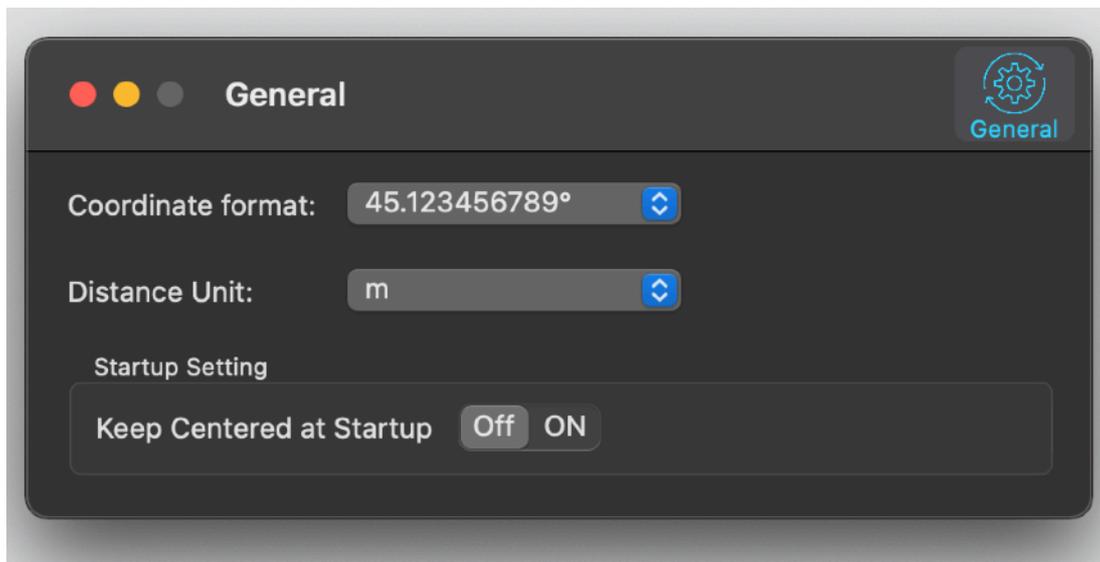
- 22° 35' 43.567"
- 25° 11.567671'
- 32.842365412°

Distance Unit:

The user can select the measure unit used for displaying the max error in showing position from meters or feet

Starting Setup:

The user can select if to start the application with 'Keep Centered' on



## Light and Dark Mode

This application is also fully compatible with Dark Appearance Mode available on macOS from macOS 10.14 Mojave and successive. You can switch at any time from one mode to another.

## Help

Geo WPS provides a PDF User Guide under the help menu.

## Support

You can also obtain support using the 'Support Email...' command. An email will be prepared using your email client with the correct address to send to. Yes, we answer to your emails.

## Credits

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## About Tension Software and Ecleti

All the software asset by Tension Software is now under Ecleti New company name but still the same owner and main developer (Roberto Panetta) So for the users nothing changes. We provide the same software and the services. All the user licenses are valid and assistance is provided as before to all our users.