

# GeoCoding

## Intro

What is GeoCoding?

GeoCoding as used in TripManager allows you to find a location on the OpenstreetMap map by entering (part of) its address. TripManager also allows reverse GeoCoding, meaning it can get the address belonging to GPS coordinates. That address can be stored in a GPX file, or trip file.

For more general info read the wiki: [https://en.wikipedia.org/wiki/Address\\_geocoding](https://en.wikipedia.org/wiki/Address_geocoding)

TripManager doesn't have a database with the data needed, but it uses <https://geocode.maps.co/> as a webservice provider. To use GeoCoding in TripManager you will need an **Api\_Key** that you can obtain by registering here: <https://geocode.maps.co/join/> If you use the Free plan you can issue 5000 requests per day, and 1 request per second. I have been using the Free account for over a year now and never felt the need to upgrade. Also worth noting that I never had spam from them, until now.

## Getting started

- Get the Api\_Key and save it somewhere in a safe place.
- Start TripManager
- Click on Advanced/Settings
- Select the GeoCode settings tab
- The 'GeoCodeUrl' should normally not be changed, unless GeoCode changes their URL.
- On the line that reads 'GeoCodeApiKey' enter (Copy and paste) your Api Key. Click on Validate to test the Api\_Key.
- Notice the Memo fields under 'Address Format'

The default lines are:

```
ISO3166-2-lvl4,state  
village,town,city,municipality,hamlet  
road+house_number
```

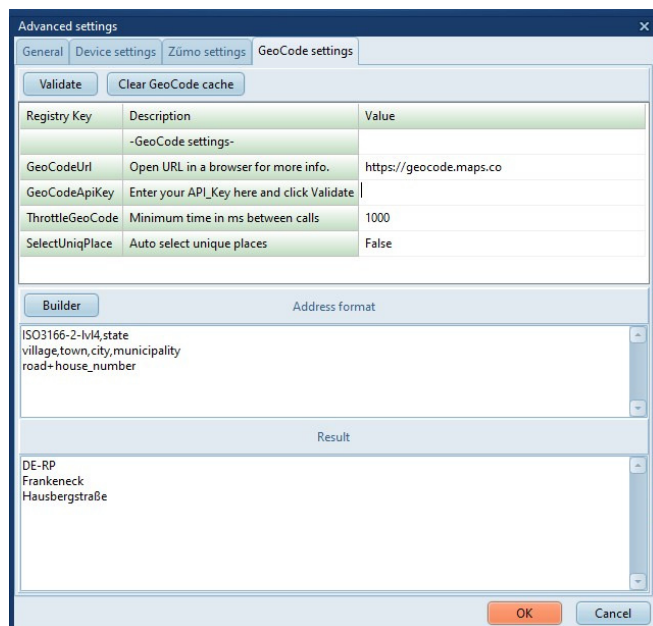
They define how the address info from GeoCode is formatted for use in TripManager.

- o Separate tags with a comma to specify a backup value.  
2<sup>nd</sup> line: Use Village, if not avail use Town, if not avail use City etc...
- o Separate tags with a plus to concatenate tags.  
Third line: use the Road name and append the House number.

For more info on the tags you can use see: <https://wiki.openstreetmap.org/wiki/Key:place>

Tip: Use the button **Builder** to insert pre-defined tags.

- 'ThrottleGeoCode'. For a free GeoCode subscription you are only allowed 1 request/second. Specifying 1000 (ms) directs TripManager to throttle the requests to adhere to that restriction.
- Click on OK.



For performance reasons, the lookup's of coordinates are cached in %AppData%\TripManager. You can clear the cache using the button 'Clear GeoCode cache'.

## Searching the coordinates of a place

A button has been added on top of the Map named 'Search'.

Assume you are looking for 'Europalaan 23' in 'Vlijmen'. (Address format as used in NL)

Just enter the Place 'Vlijmen', and look it up on the map.

Select a location from the results, or click **retry** to adjust your search.

Be more specific and add the street and house\_number.

On the Free search tab use a + plus (or , comma) to separate the search parameters.

Or use the Formatted tab.

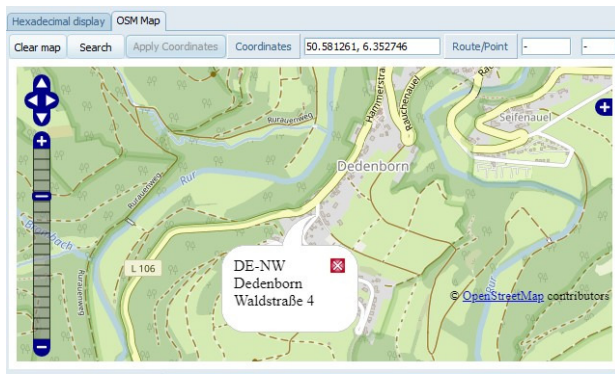
**Vlijmen+europalaan+23**

**Same, but formatted in separate fields.**

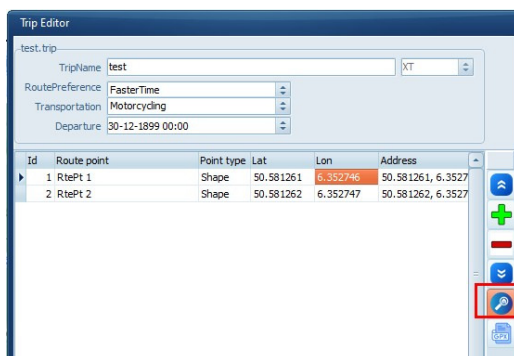
## Searching the place of coordinates

With GeoCoding enabled these functions will lookup the address of the coordinates.

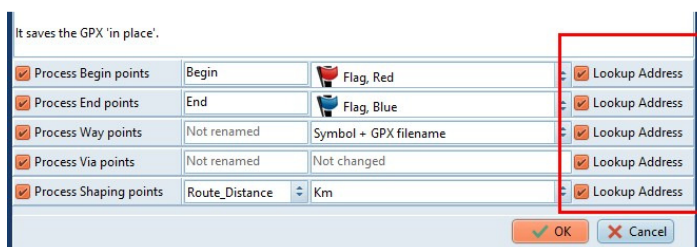
1. Using Ctrl+Click in the map.



2. Using the lookup button in the TripEditor.  
The Address found is stored in the trip file in field 'mAddress'.



3. Post processing a GPX, for points that have Lookup Address checked.  
The address found is stored in the <cmnt> xml tag. Additionally for Way points in the <address> tags.



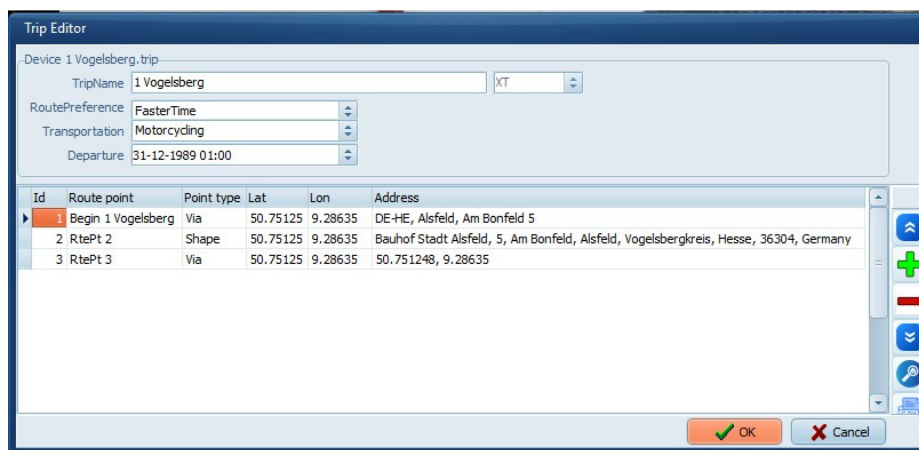
Note: Importing/Exporting in/from Basecamp will retain the data, but the <cmnt> is not visible in BaseCamp.

## Address format examples

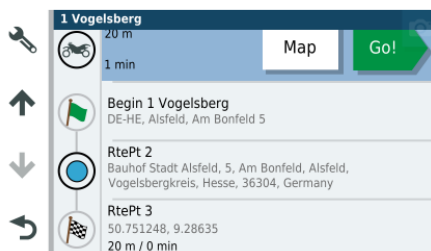
The setting 'Address format' controls how an address returned by GeoCode should be formatted. Here the same location is shown in 3 different formats.

1. The default TripManager setting  
ISO3166-2-lvl4,state  
village,town,city,municipality,hamlet  
road+house\_number
2. A special tag named: `display_name` showing all data.
3. A special tag named: `coords` showing only the GPS coordinates.

In Trip Editor:



On the XT:



The available tag names depend on the data that is available in OSM for a location. To view all tags available for a specific location use the special tag debug.

This will add a block with `****Debug info ****`

