

Create_POI

Version and Licence

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<https://mapicons.mapsmarker.com>
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About

This program pulls data from OpenStreetMap using the Overpass Turbo API. Pulled data is then converted to Waypoints in different formats:

- GPX
- GPI = Garmin Points of Interest
- KML (Organic Maps format)
- KML (Oruxmaps format)

Use

Create_POI has no user interface. All parameters are set via command line parameters and a JSON file.

As a result, you receive

- converted KML(s) with the name {clear_name}-{country}
- all KML of a region are packed in one ZIP named {clear_name}-{region}
- all ZIP of a query will be packed into one ZIP named {clear_name}-ALL.zip

Similar is true for GPX, GPI, KML_organic.

If there are any errors, you will be informed.

Using the JSON file

- in_scope** Set which Geos you want to pull data from.
- In_scope1** just to easily park another working in_scope. Will be ignored by code.
- remark** Write some remarks. Will be ignored by code.
- maps_geo** Define the Geographies and their countries you want to pull data. *Make sure you write everything in small letter, and have an appropriate ISO code defined!*
- iso_code** Make sure all countries you define are reflected in this section. *Use uppercase letters!*
- 7z** to get everything packed 7z is used. 3. Make sure you have 7z installed and set the path to the executable.
- GPSTBabel** You need to have GPSTBabel to be installed. Define the path to GPSTBabel.exe NOT GPSTBabelFE.exe

```
1 {
2   "in_scope" : ["central","west","nordics","east","uki","southeast","maghreb","asia-west"],
3   "in_scope1" : ["central","west","southeast"],
4   "in_scope2" : ["my_special"],
5   "remark" : "=====",
6   "remark1" : " Do not touch anything further down here except my_special ",
7   "remark2" : "=====",
8   "maps_geo" : {
9     "central" : ["germany", "austria", "switzerland", "liechtenstein", "netherlands", "belgium", "luxembourg"],
10    "west" : ["france", "spain", "portugal", "andorra"],
11    "nordics" : ["denmark", "sweden", "norway", "finland", "latvia", "lithuania", "iceland"],
12    "east" : ["czechia", "slovakia", "poland", "belarus", "ukraine"],
13    "uki" : ["uk", "ireland"],
14    "southeast" : ["liechtenstein", "italy", "albania", "bosnia", "bulgaria", "croatia", "greece", "hungary", "kosovo", "macedonia", "montenegro", "romania", "serbia", "slovenia"],
15    "maghreb" : ["tunisia", "morocco"],
16    "asia-west" : ["turkey", "georgia", "armenia", "azerbaijan", "iran"],
17    "my_special" : ["germany"]
18  },
19   "iso_code" : {
20     "albania" : "AL",
21     "andorra" : "AD",
22     "armenia" : "AM",
23     "azerbaijan" : "AZ",
24     "belarus" : "BY",
25     "belgium" : "BE",
26     "bosnia" : "BA",
27     "bulgaria" : "BG",
28     "croatia" : "HR",
29     "czechia" : "CZ",
30     "denmark" : "DK",
31     "finland" : "FI",
32     "france" : "FR",
33     "germany" : "DE",
34     "georgia" : "GE",
35     "greece" : "GR",
36     "hungary" : "HU",
37     "iceland" : "IS",
38     "ireland" : "IE",
39     "italy" : "IT",
40     "latvia" : "LV",
41     "lithuania" : "LT",
42     "liechtenstein" : "LI",
43     "luxembourg" : "LU",
44     "malta" : "MT",
45     "macedonia" : "MK",
46     "montenegro" : "ME",
47     "netherlands" : "NL",
48     "norway" : "NO",
49     "poland" : "PL",
50     "portugal" : "PT",
51     "romania" : "RO",
52     "serbia" : "RS",
53     "slovakia" : "SK",
54     "slovenia" : "SI",
55     "spain" : "ES",
56     "sweden" : "SE",
57     "switzerland" : "CH",
58     "turkey" : "TR",
59     "uk" : "GB",
60     "ukraine" : "UA",
61     "usa" : "US",
62     "uzbekistan" : "UZ",
63     "vanuatu" : "VU",
64     "venezuela" : "VE",
65     "vietnam" : "VN",
66     "yemen" : "YE",
67     "zimbabwe" : "ZW",
68     "7z_exe" : "C:\\Program Files\\7-Zip\\7z.exe",
69     "gpstbabel" : "C:\\Program Files\\GPSTBabel\\GPSTBabel.exe"
```

Using the command line parameters

The command line parameters follow the python directory syntax. All key and tags need to follow the [OpenStreetMap syntax](#). Everything will be queried using the Overpass Turbo API.

Example 1:

```
Create_POI.exe --dictionary '{"key':'amenity', 'tag':'fuel', 'clear_name':'Gas_Station',  
'icon':'Fuel.png', 'icon_color':'placemark-bluegray', 'brand':'false', 'brand_name':'',  
'second_key':'', 'second_tag':'' }"
```

In this example we use key = amenity and its tag=fuel. So we query [gas-stations](#).

The icon is used in standard KML (Oruxmaps), the icon_color used to handle the POIs color for use with Organic.maps. The differences will be described later in this document.

We do not query a brand nor do we use a secondary key.

As a result you will receive ALL gas-station in the area you defined.

Example 2:

```
Create_POI.exe --dictionary '{"key':'amenity', 'tag':'fuel',  
'clear_name':'LPG_Gas_Station', 'icon':'gas-station.png', 'icon_color':'placemark-pink',  
'brand':'false', 'brand_name':'', 'second_key':'fuel:lpg', 'second_tag':'yes' }"
```

In this example we use key = amenity and its tag=fuel. So, we query [gas-stations](#). BUT now we use a secondary key that filters the gas-stations to the ones who sell lpg gas.

Example 3:

```
Create_POI.exe --dictionary '{"key':'shop', 'tag':'motorcycle', 'clear_name':'BMW-Dealer',  
'icon':'motorbike.png', 'icon_color':'placemark-orange', 'brand':'true',  
'brand_name':'BMW', 'second_key':'', 'second_tag':'' }"
```

In this example we use key=shop and tag=motorcycle. This means we search for motorcycle dealer (or someone selling motorcycle equipment, gear...). Next, we filter with brand=true, so we want to find a specific brand, in this case BMW. Second key and tag will not be used. As a readable name on our smartphone, we want to identify these waypoints with the name BMW-Dealer. The result will be all BMW dealer per your region defined as a KML/GPX/GPI file with the name "area"-BMW-Dealer (e.g., Germany-BMW-Dealer).

More examples take from the example batch files applied to the ZIP file.

Dependencies

Make sure you have [7z](#) installed and set the path to the executable. Same applies for [GPSBabel](#).

Queried Waypoints (Points of Interest)

Standard KML only (OruxMaps): Waypoints (POI) will be shown as icons. Based on how KML works, the icons need to come from somewhere in the web. By default, defined in the JSON, all icons used are addressed to my server <http://motorradtouren.de/pics> so they can be pulled from there.

If you want to change that, change the JSON. It's easy to find.

If you decide to setup your own icon host, here is where you can download the icons:

<https://mapicons.mapsmarker.com/wp-content/uploads/zip/mapiconscollection-markers.zip>

If you want to define icons and need more information: Download the package via the link above. Find the icon you want and check if it works.

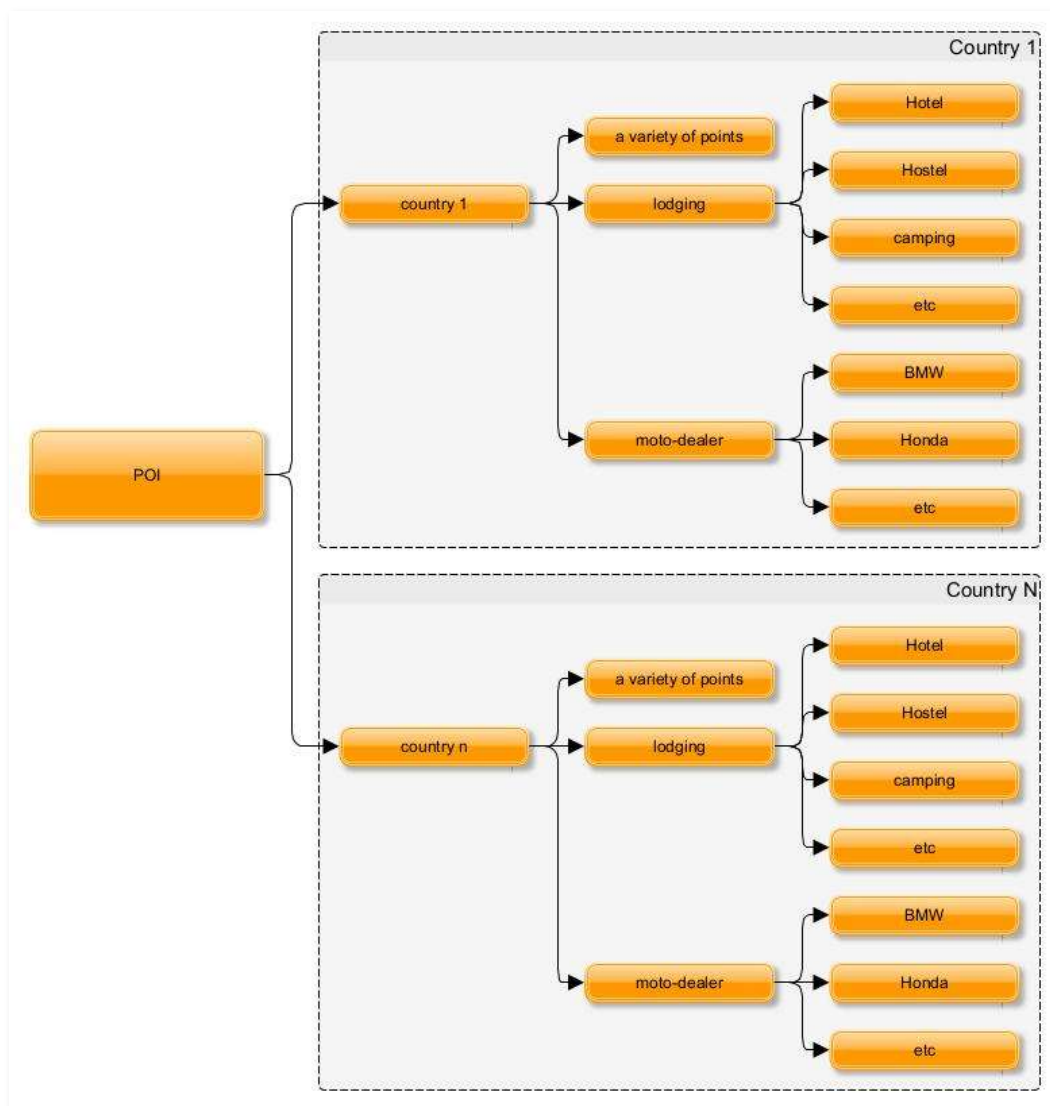
OrganicMaps KML: POI will be displayed in OrganicMaps as pins in the color you defined. The color definition is strictly done by OrganicMaps. There is a list of possible colors later in this document.

GPX: Icons in GPX can be defined according to the names defined by Garmin.

GPI (Garmin Points of Interest): Icons can be defined as a Bitmap in 24x24. Several examples are provided.

Folder structure

The output will be organised in folders that you can immediately copy to your device. The structure makes sure you find what you need at the place where you are. So, all points for e.g. Albania, are stored under \POI\albania. See more:



To maintain easy finding, moto-dealer are organized in their own subfolder as its true for all lodging options - OSM "tag = motorcycle" and "tag= hotel" and certain "others".

Setting Examples

Simply copy & paste these sections to the JSON (change the existing lines)

Guesthouses:

```
"key"           : "tourism",
"tag"           : "guest_house",
"clear_name"    : "Guesthouse",
"icon"          : "guest_house.svg",
'icon_color'    : 'placemark-teal'
```

Apartment:

```
"key"           : "tourism",
"tag"           : "apartment",
"clear_name"    : "Apartment",
"icon"          : "Apartment.svg",
'icon_color'    : 'placemark-teal'
```

Hostel:

```
"key"           : "tourism",
"tag"           : "hostel",
"clear_name"    : "Hostel",
"icon"          : "Hostel-16.svg",
'icon_color'    : 'placemark-teal'
```

Hotels:

```
"key"           : "tourism",
"tag"           : "hotel",
"clear_name"    : "Hotel",
"icon"          : "Hotel-16.svg",
'icon_color'    : 'placemark-teal'
```

Camper_Car_Site:

```
"key"          : "tourism",
"tag"          : "Camper_Car_Site",
"clear_name"   : "Camper_Car_Site",

"icon"         : "Camping-16.svg",
'icon_color'   : 'placemark-deeppurple'
```

LPG Gas Stations:

```
"key"          : "amenity",
"tag"          : "fuel",
"clear_name"   : "LPG_Gas_Station",
"icon"         : "gas-station.png",
'icon_color'   : 'placemark-pink',
'brand'        : 'false',
'brand_name'   : '',
'second_key'   : 'fuel:lpg',
'second_tag'   : 'yes'
```

More:

<https://wiki.openstreetmap.org/wiki/DE:Tourismus>

Credits

- To build a running EXE from python source, I'm using the pyinstaller from <https://pyinstaller.org/en/stable/>
- Icons used are licensed under
Map Icons Collection
Creative Commons 3.0 BY-SA
Author: Nicolas Mollet
<https://mapicons.mapsmarker.com>

Data privacy

- By design XML structures as KML reach out for external servers.
- Using icons make the KML interpreter (as Oruxmaps) reaching out to my server via <http://motorradtouren.de/pics> (or wherever you decided to host the icons!)
- No access data is collected or stored for this service by this program or on the server motorradtouren.de.

Most common icons I use for Oruxmaps

Here some common Waypoints as they are used by Basecamp (left column) and a possible conversion to KML.

```
"points": {
  "remark"      : "----- Section has no function -----",
  "Default": "pin-export.png",
  "Airport": "airport.png",
  "ATV": "atv.png",
  "Bar": "bar.png",
  "Beach": "beach_icon.png",
  "Big Game": "deer.png",
  "Bike Trail": "cycling.png",
  "Building": "house.png",
  "Bunker": "bunker.png",
  "Campground": "campground.png",
  "Church": "church.png",
  "Circle, Green": "grass.png",
  "Circle with X": "comment-map-icon.png",
  "City (Small)": "star-3.png",
  "Controlled Area": "accesdenied.png",
  "Crossing": "junction.png",
  "Danger Area": "attention.png",
  "Department Store": "departmentstore.png",
  "Drinking Water": "drinkingwater.png",
  "Fast Food": "coffee.png",
  "Ferry": "cruiseship.png",
  "Flag, Blue": "flag-export.png",
  "Gas Station": "gas-station.png",
  "Heliport": "helicopter.png",
  "Information": "information.png",
  "Live Theater": "theater.png",
  "Lodge": "hotel_0star.png",
  "Lodging": "lodging.png",
  "Military": "military.png",
  "Museum": "museum_archeological.png",
  "Navaid, Black": "letter_n.png",
  "Navaid, Green": "grass.png",
  "Navaid, Orange": "symbol_excla.png",
  "Parking Area": "parkinggarage.png",
  "Police Station": "police.png",
  "Private Field": "world.png",
  "Puzzle Cache": "orienteering.png",
  "Railway": "train.png",
  "Residence": "home.png",
  "Restaurant": "restaurant.png",
  "RV Park": "campingcar.png",
  "Scenic Area": "panoramicview.png",
  "Shopping Center": "conveniencestore.png",
```

```
"Skull and Crossbones": "skull.png",
"Soft Field": "smiley_happy.png",
"Summit": "hill.png",
"Swimming Area": "swimming.png",
"Toll Booth": "tollstation.png",
"TracBack Point": "footprint.png",
"Trail Head": "hiking.png",
"Tree Stand": "kanzeldach.png",
"Truck": "truck.png",
"Ultralight Area": "aircraftsmall.png",
"Wreck": "shipwreck.png"
}
```

More icons placed on motorradtouren.de/pins:

Lodging:

- Apartment.svg
- Camping-16.svg
- Hostel-16.svg
- Hotel-16.svg
- Motel-16.svg
- guest_house.svg
- Caravan-16.svg
- Alpinehut.svg

Others:

- Fuel.svg

Points / Pins for OrganicMaps

The Organic.Maps implementation of KML does not use graphics as available in Garmin. The following icons are the ones I am aware of:

Standards from Organic.Maps / Maps.Me:

- placemark-red
- placemark-blue
- placemark-purple
- placemark-yellow
- placemark-pink
- placemark-brown
- placemark-green
- placemark-orange
- placemark-deeppurple
- placemark-lightblue
- placemark-cyan
- placemark-teal
- placemark-lime
- placemark-deepporange
- placemark-gray
- placemark-bluegray

Garmin Waypoints

This are the waypoints I'm aware so far:

Airport	Contact, Big Ears	Hunting	Restroom
Alert	Contact, Biker	Kayak	RV Park
Amusement Park	Contact, Bug	Letter A, Red	Scales
Anchor	Contact, Cat	Letter B, Red	Scenic Area
Animal Tracks	Contact, Dog	Letter C, Red	School
ATV	Contact, Dreadlocks	Letter D, Red	Shelter
Ball Park	Contact, Female1	Lighthouse	Shipwreck
Bank	Contact, Female2	Marina	Shopping Center
Bar	Contact, Female3	Man Overboard	Short Tower
Beach	Contact, Goatee	Medical Facility	Shower
Bell	Contact, Kung-Fu	Mine	Ski Resort
Big Game	Contact, Pig	Movie Theater	Skiing Area
Bike Trail	Contact, Pirate	Museum	Skull and Crossbones
Binoculars	Contact, Ranger	Navaid, Amber	Small Game
Blind	Contact, Smiley	Navaid, Black	Snowmobile
Block, Blue	Contact, Spike	Navaid, Blue	Square, Yellow
Block, Green	Contact, Sumo	Navaid, Green	Stadium
Block, Red	Contact, Female3	Navaid, Orange	Stop Sign
Blood Trail	Controlled Area	Navaid, Red	Street Intersection
Boat Ramp	Convenience Store	Navaid, Violet	Summit
Bowling	Cover	Navaid, White	Swimming Area
Bridge	Covey	Number 1, Blue	Tall Tower
Building	Crossing	Number, Blue	Telephone
Buoy, White	Dam	Number, Blue	Toll Booth
Campground	Danger Area	Number 4, Blue	Trail Head
Camp Fire	Department Store	Oil Field	Tree
Canoe	Diver Down Flag	Parachute Area	Tree Stand
Car	Drinking Water	Park	Treed Quarry
Car Rental	Fast Food	Parking Area	Triangle, Blue
Car Repair	Fishing Area	Pharmacy	Triangle, Green
Cemetery	Fishing Hot Spot	Picnic Area	Triangle, Red
Church	Facility	Pin, Blue	Triangle, Yellow
Circle with X	Fitness Center	Pin, Green	Truck
Circle, Blue	Flag, Blue	Pin, Red	Truck Stop
Circle, Green	Flag, Green	Pin, Yellow	Tunnel
Circle, Red	Flag, Red	Pizza	Ultralight Area
City (Large)	Food Source	Police Station	Upland Game
City (Medium)	Forest	Post Office	Waterfowl
City (Small)	Furbearer	Private Field	Water Source
Civil	Gas Station	Radio Beacon	Wind Turbine
Contact, Afro	Glider Area	Residence	Wrecker
Contact, Alien	Golf Course	Restaurant	XSki
Contact, Ball Cap	Horse Trail	Restricted Area	Zoo

Symbol Name	Description
Airport	Represents an airport or airfield
Amusement Park	Represents an amusement park
Anchor	Anchor icon for marine use
Ball Park	Ballpark or sports field
Bank	Bank or financial institution
Bar	Bar or pub
Beach	Beach area
Bike Trail	Bicycle trail or route
Boat Ramp	Boat launch or ramp
Bridge	Bridge or overpass
Building	Generic building
Campground	Camping or campground area
Car	Car icon for parking or auto-related points
Circle with Dot	Generic waypoint
City (Capitol)	Capitol city icon
City (Large)	Large city icon
City (Medium)	Medium city icon
City (Small)	Small city icon
Controlled Area	Restricted or controlled access area
Convenience Store	Convenience store
Dam	Dam or reservoir
Danger Area	Dangerous or hazardous area
Drinking Water	Drinking water source
Fishing Area	Fishing hotspot
Flag	Flag, often used for marking locations
Forest	Forest or wooded area
Gas Station	Fuel station
Geocache	Geocaching symbol
Glider Area	Glider or hang-gliding area
Golf Course	Golf course or area
Home	Home location
Hospital	Hospital or medical facility
House	Generic house icon
Information	Information center or resource
Lodging	Hotel, motel, or lodging
Marina	Marina for boats
Mountain	Mountain or peak
Museum	Museum or cultural site
Park	Park or recreational area
Parking Area	Designated parking area
Picnic Area	Picnic area
Post Office	Post office
Restaurant	Restaurant or dining location
Restroom	Restroom or washroom
RV Park	Recreational vehicle park

Symbol Name	Description
Scenic Area	Scenic viewpoint
School	School or educational institution
Shopping Center	Shopping area
Shower	Shower facility
Ski Area	Ski resort or area
Swimming Area	Swimming or beach area
Toilet	Public restroom or toilet
Trailhead	Trail starting point
Train Station	Train station
Tunnel	Tunnel or underpass
Waypoint	Generic waypoint symbol
Water Source	Water source (spring, fountain, etc.)
Zoo	Zoo or animal park