

# Что да как в OpenStreetMap

Илья Зверев, Wheely  
DevClub #154

Я картограф

Я не картограф

128  
Tape Loader  
128 BASIC  
Calculator  
48 BASIC  
Tape Tester

© 1986 Sinclair Research Ltd



of the map are EASTINGS and must be quoted first when giving a grid reference

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Islands  
Thorne Meadows  
Everly Lodge  
Frittham Lodge  
The Bull  
King's Farm  
Garage  
Incestone

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Coopers Hill  
Frittham Lodge  
The Bull  
King's Farm  
Garage  
Incestone

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Salisbury Trench  
Round Hill  
Brook Common  
Frittham Lodge  
The Bull  
King's Farm  
Garage  
Incestone

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Salisbury Trench  
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Garage  
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Salisbury Trench  
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Frittham Lodge  
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King's Farm  
Garage  
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Salisbury Trench  
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Brook Common  
Frittham Lodge  
The Bull  
King's Farm  
Garage  
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Salisbury Trench  
Round Hill  
Brook Common  
Frittham Lodge  
The Bull  
King's Farm  
Garage  
Incestone

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Long 1° 35' W

2900m

1500m

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Jun 2 to Aug  
6 km or 4 miles  
A 31  
M 27

Lat 50° 55' N

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OpenStreetMap



Shrewsbury & Oswestry

Derby & Burton upon Trent

Nottingham & Loughborough

Grantham  
Sleaford & Bourne

North West Norfolk

North East Norfolk

Norwich & The Broads

Aberystwyth & Machynlleth

Church Stretton & Ludlow / Liwydlo

Kidderminster & Wye Forest

Birmingham & Wolverhampton

Birmingham & Wolverhampton  
including The Black Country

Leicester, Coventry & Rugby

Kettering & Corby  
Market Harborough & Stamford

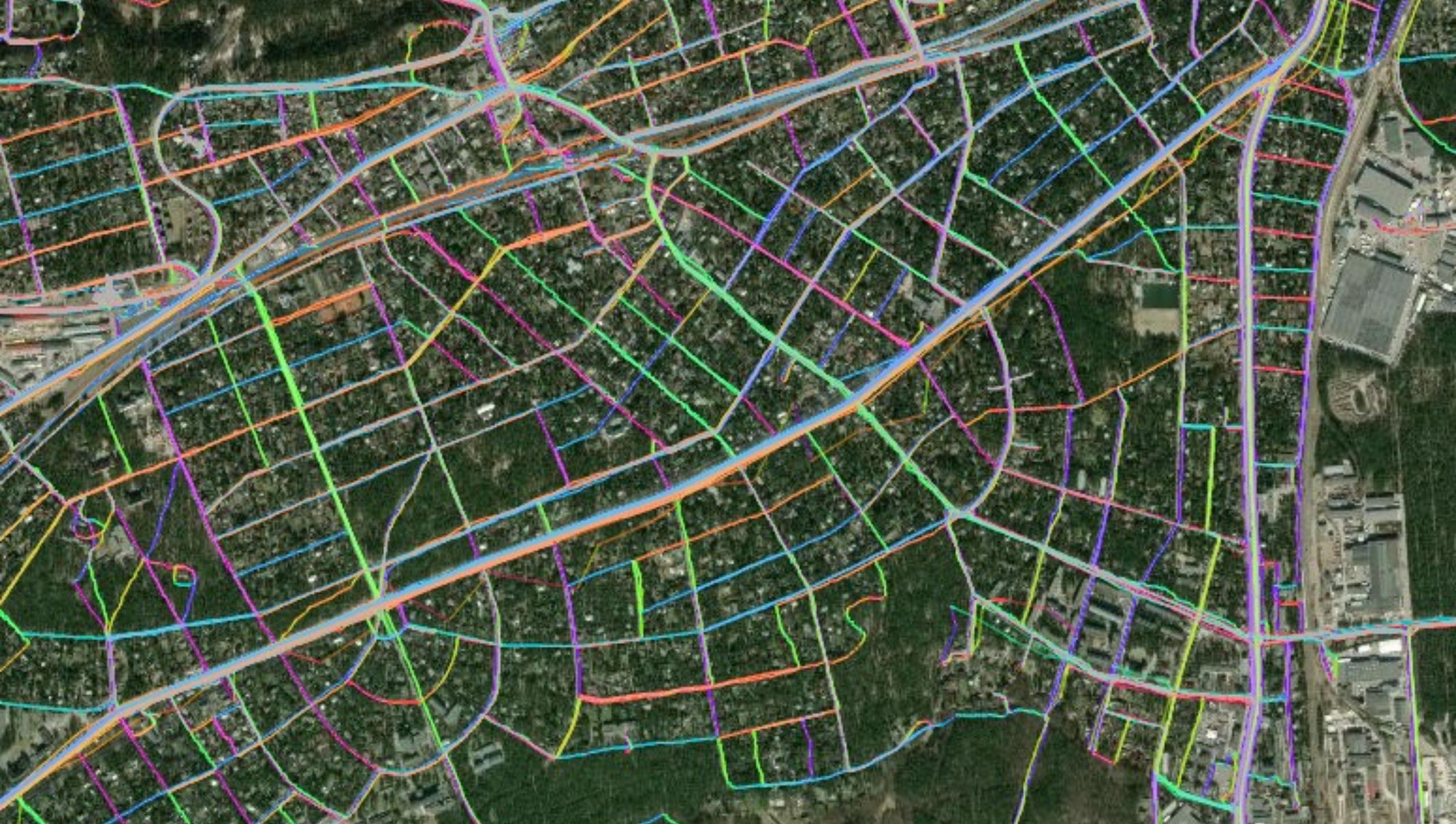
Ely & Wisbech

Thetford & Diss

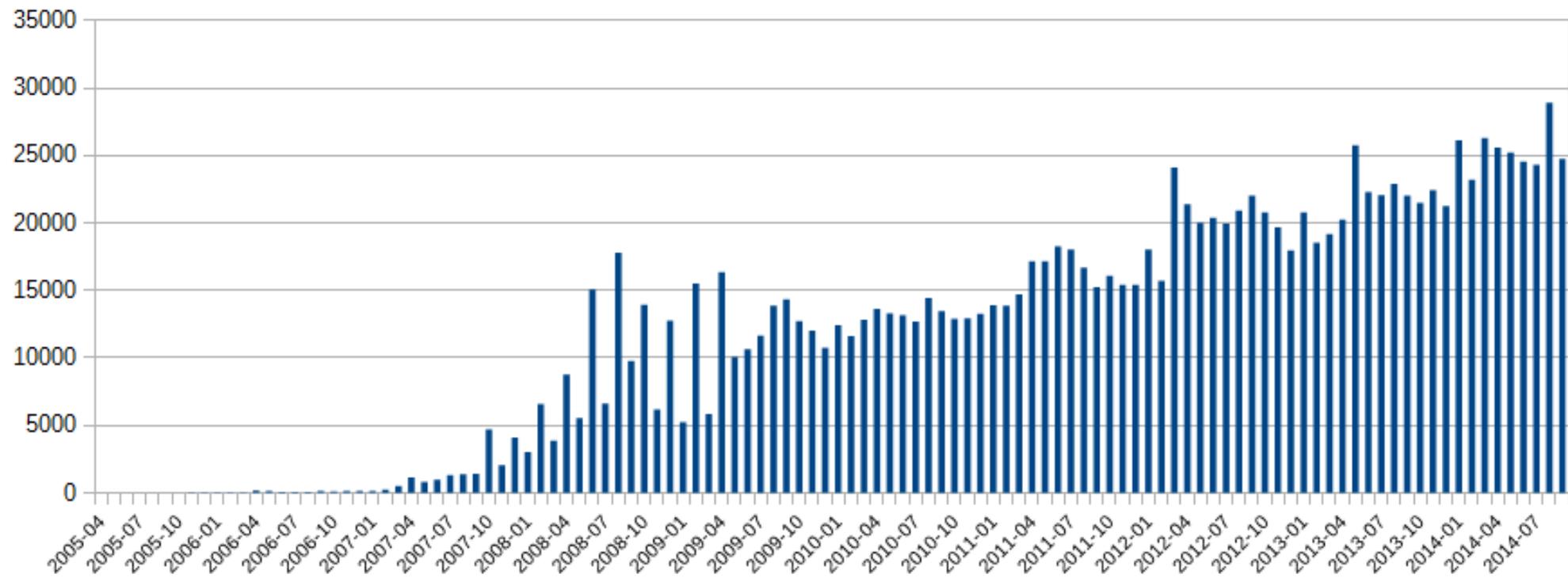
Cardigan & Mynydd Preseli /  
Aberteifi a Mynydd Preseli

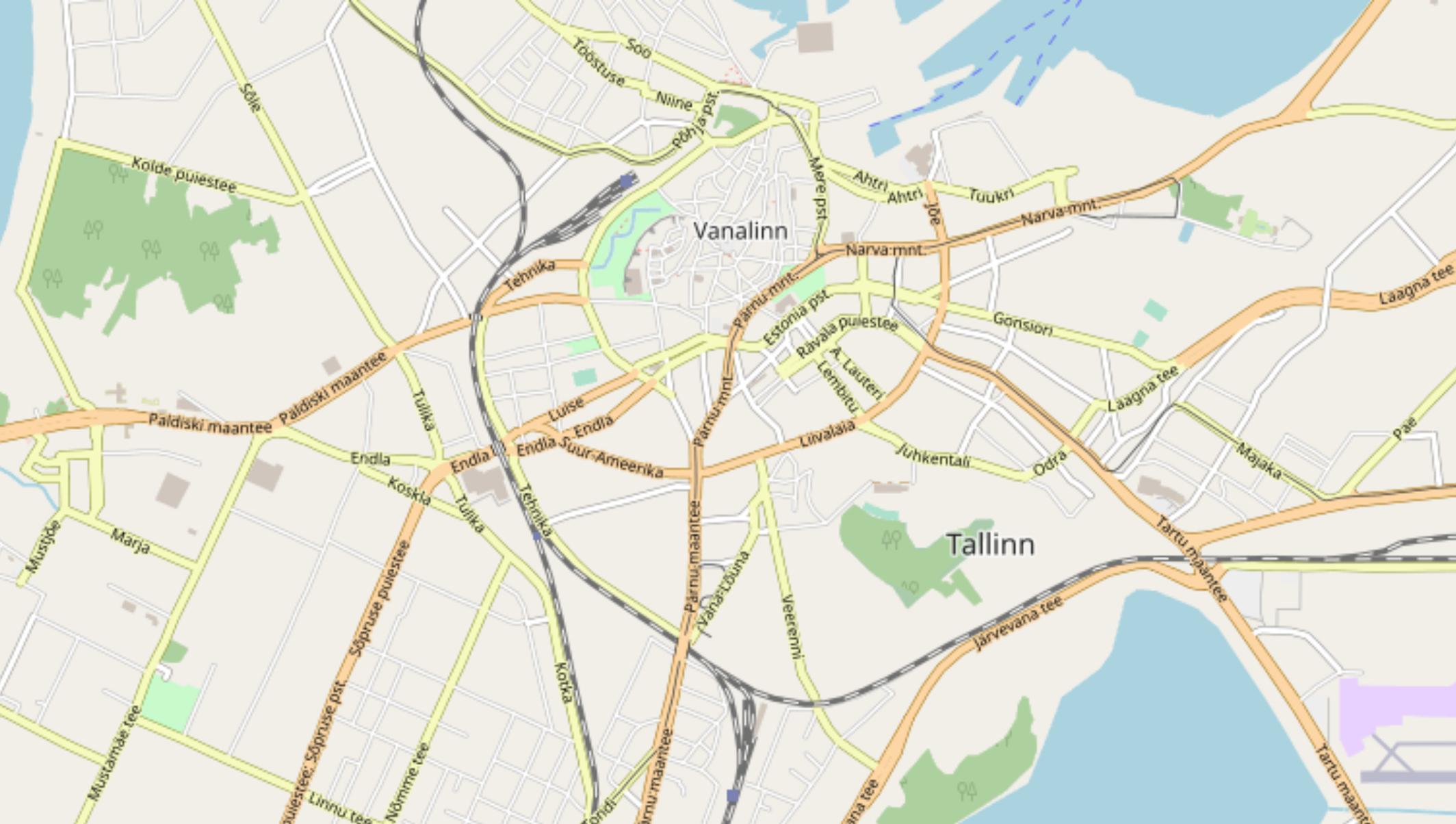


**VIQUIPÈDIA**  
L'enciclopèdia lliure



## Active Contributors per Month





Vanalinn

Tallinn

Soole  
Koidu puiestee  
Toostuse  
Soo  
Niine  
Põhja pst  
Mere pst  
Ahtri  
Ahtri  
Tuukri  
Narva-mnt.  
Narva-mnt.  
Tehnika  
Pärnu-mnt.  
Estonia pst  
Ravala puiestee  
Gonsiori  
Laagna tee  
Laagna tee  
Pae  
Paldiski maantee  
Tuijka  
Endla  
Luise  
Endla  
Endla  
Juur-Ameerika  
Pärnu-mnt.  
Estonia pst  
A. Lauderer  
Lembirtu  
Livalaia  
Juhkentali  
Odra  
Majaka  
Tartu maantee  
Pärnu maantee  
Vaharõdvana  
Veerevanti  
Järvevana-tee  
Tartu maantee  
Mustamäe tee  
Linnu tee  
Nõmmete tee  
Koskila  
Tuijka  
Tehnika  
Koskila  
Marja  
Mustamäe tee  
Puiestee: Sõpruse pst  
Linnu tee  
Nõmmete tee

# 1. Гаити



**Port-au-Prince**

Nationale No 2 Nationale No 2

Nationale No 2

rue Capois

avenue Lemaître

Nationale No 2



OpenStreetMap

Правка



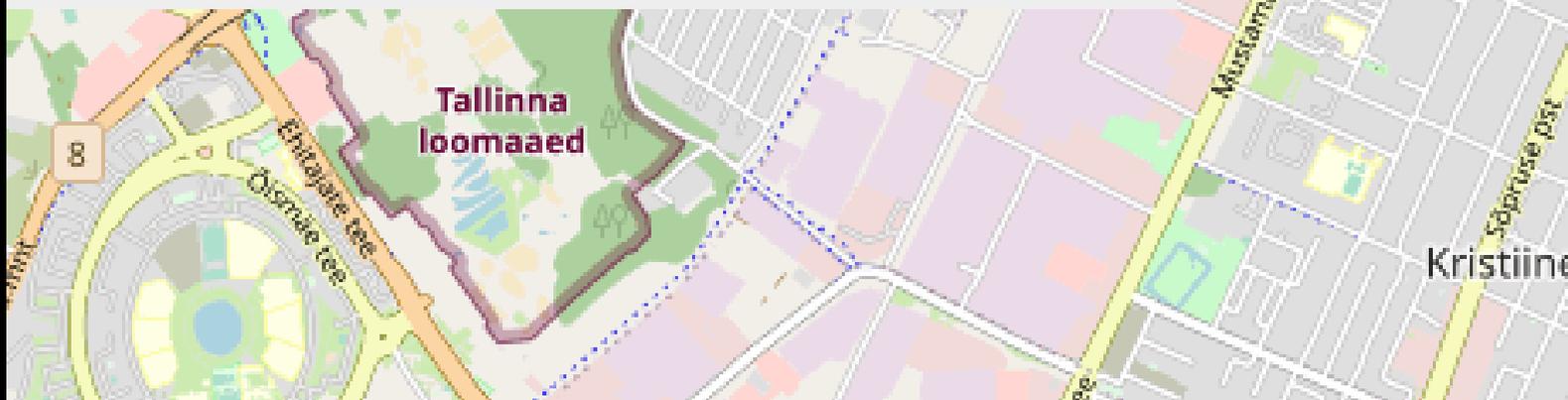
История

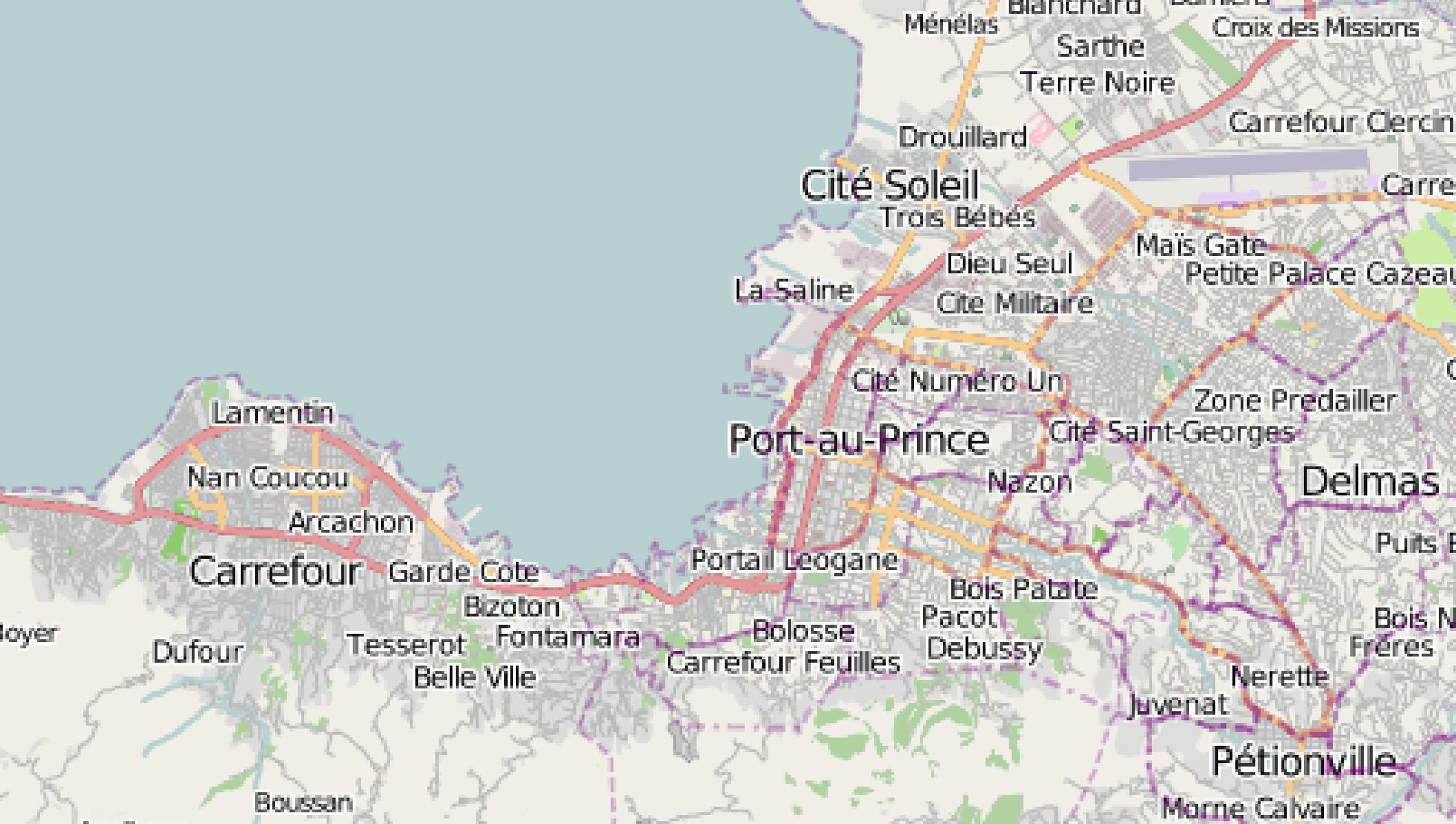
Экспорт

Поиск

Где это?

Найти





Cité Soleil

Port-au-Prince

Carrefour

Pétionville

Delmas

La Saline

Trois Bébés

Cite Militaire

Cité Numéro Un

Cité Saint-Georges

Nazon

Bois Patate

Pacot Debussy

Nerette

Juvenat

Morne Calvaire

Carrefour Feuilles

Belle Ville

Tesserot

Fontamara

Bizoton

Garde Cote

Boussan

Dufour

Nan Coucou

Arcachon

Lamentin

Drouillard

Ménélas

Sarthe

Terre Noire

Croix des Missions

Carrefour Cercin

Carre

Mais Gate

Petite Palace Cazeau

Dieu Seul

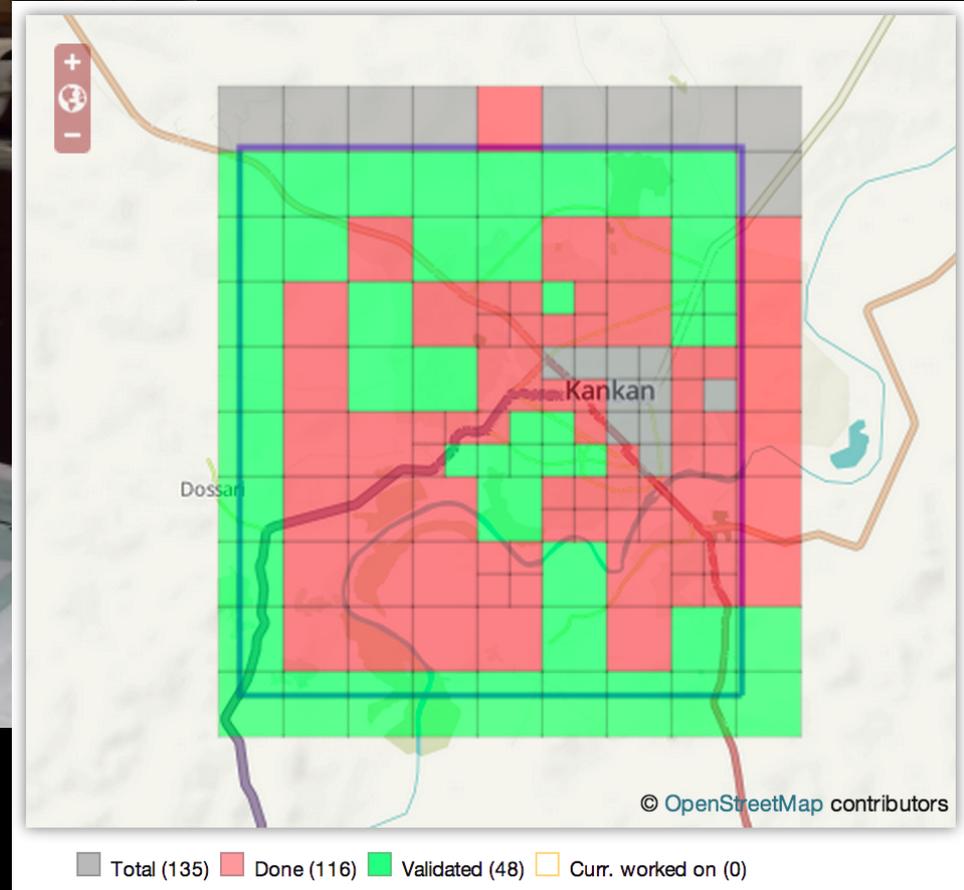
Zone Predailler

Puits E

Bois N

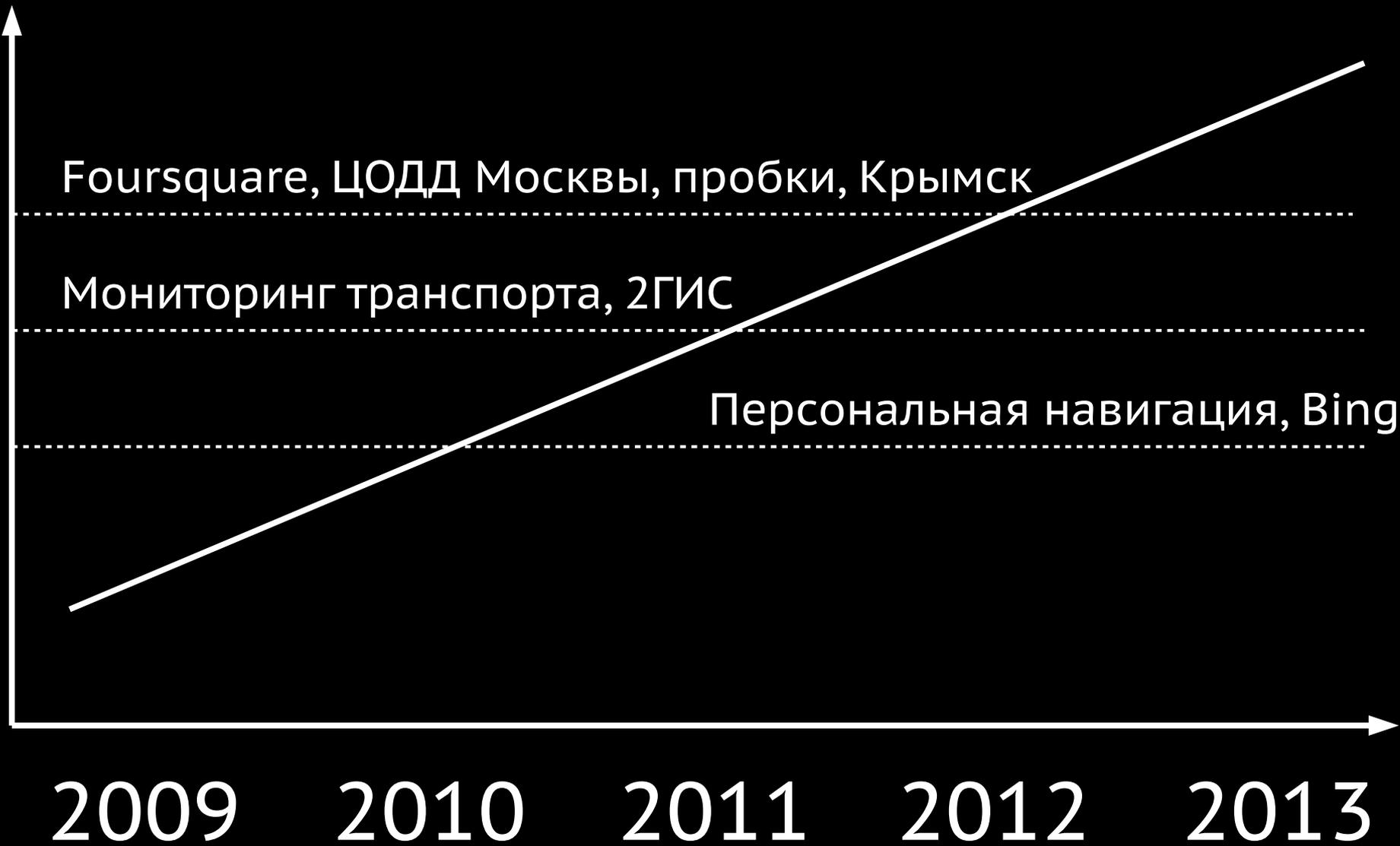
Frères

# hotosm.org



HOT > фонд OSM

# 2. Корпорации



Foursquare, ЦОДД Москвы, пробки, Крымск

Мониторинг транспорта, 2ГИС

Персональная навигация, Bing

2009

2010

2011

2012

2013

# Примерно все

- Meta
- Microsoft
- Bolt, Uber, Lyft, Grab
- ...



Order by ▾

Filters (1)

33,414 changesets.

**Becky Candy**

8 minutes ago

added and modified buildings#hotosm-project-11471 #OpenCitiesLAC

[mass modification](#)

121155034

81 1071 36

**makmar**

8 minutes ago

Lykovrisi area buildings and edit roads

[possible import](#)

121155032

228 7 0

**Дежурный сис админ ЕДДС**

9 minutes ago

1-я Линия

[User has multiple blocks](#)

121155026

52 65 23

**Hiausingr**

9 minutes ago

detailing pipelines, deleting nonsense

[suspect\\_word](#) [Very close points](#)

121155022

35 184 351

**DETAILS**

52 65 23

**Дежурный сис админ ЕДДС** (2007 edits) created 9 minutes ago

# 1-я Линия

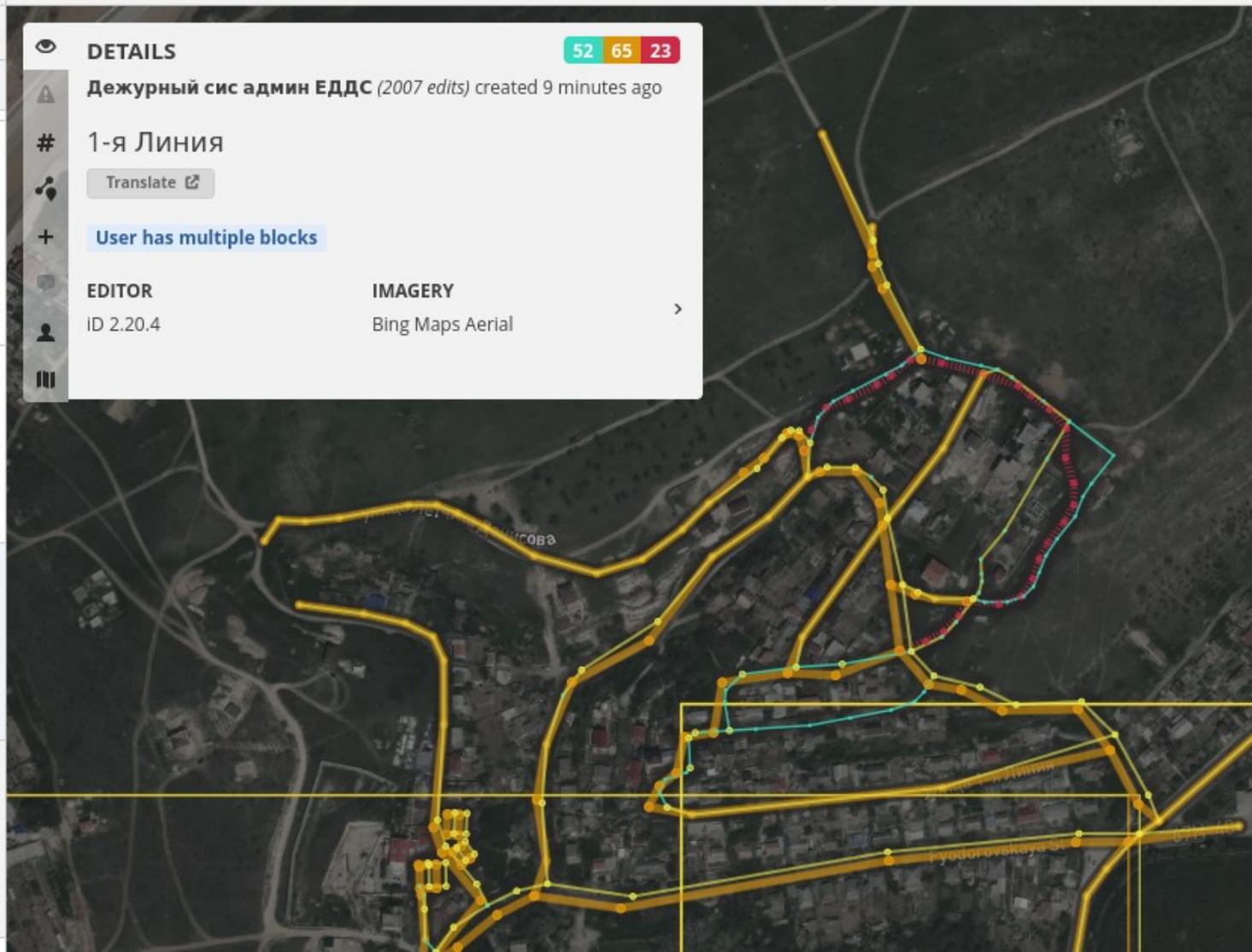
[Translate](#)[User has multiple blocks](#)

EDITOR

ID 2.20.4

IMAGERY

Bing Maps Aerial





Точка

Линия

Полигон

RapID



Исследовать

Добавить объект

Assist

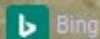
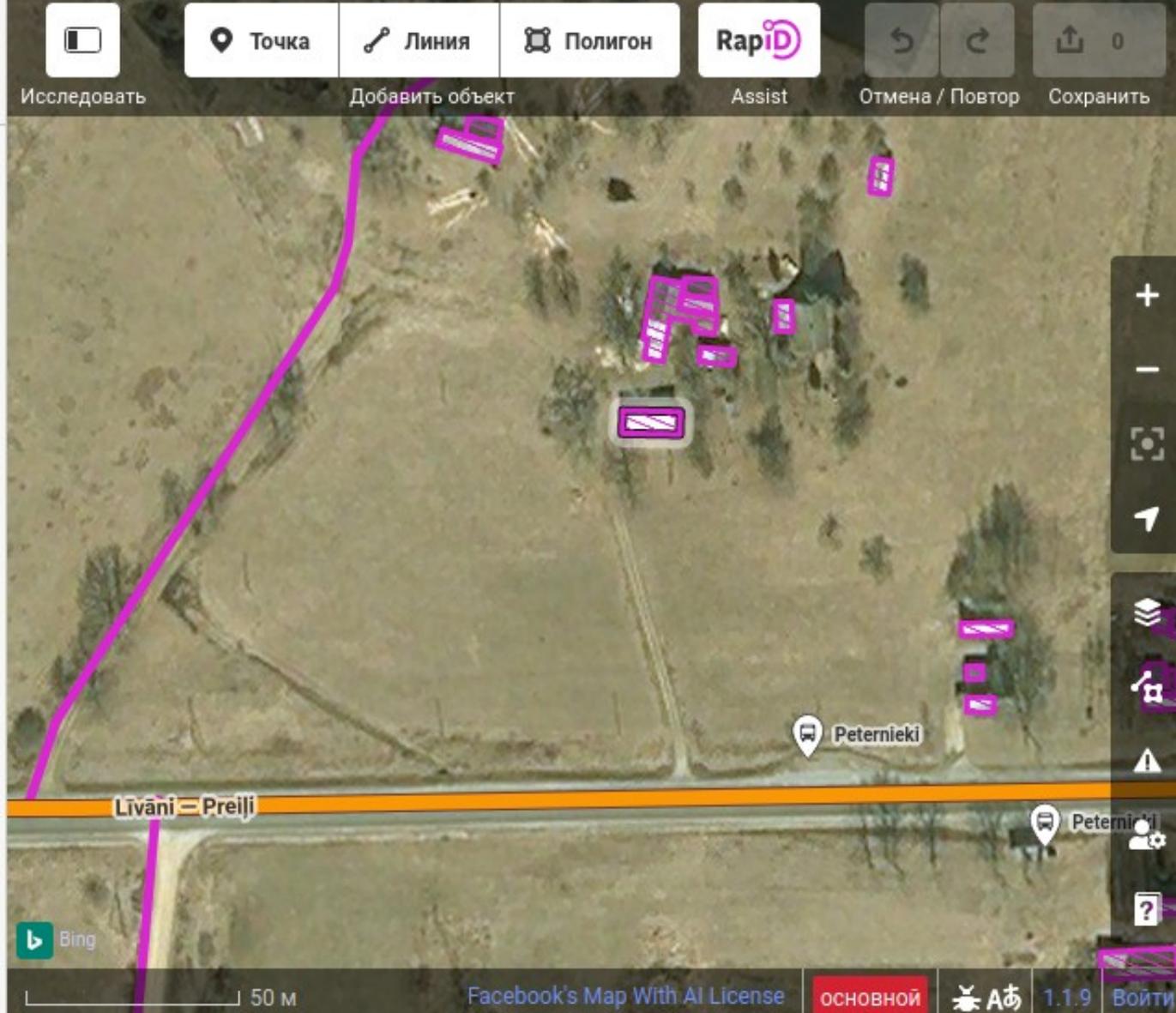
Отмена / Повтор

Сохранить

## Microsoft Buildings

Tags **building** yes

source microsoft/BuildingFootprints



50 м

Facebook's Map With AI License

ОСНОВНОЙ



1.1.9

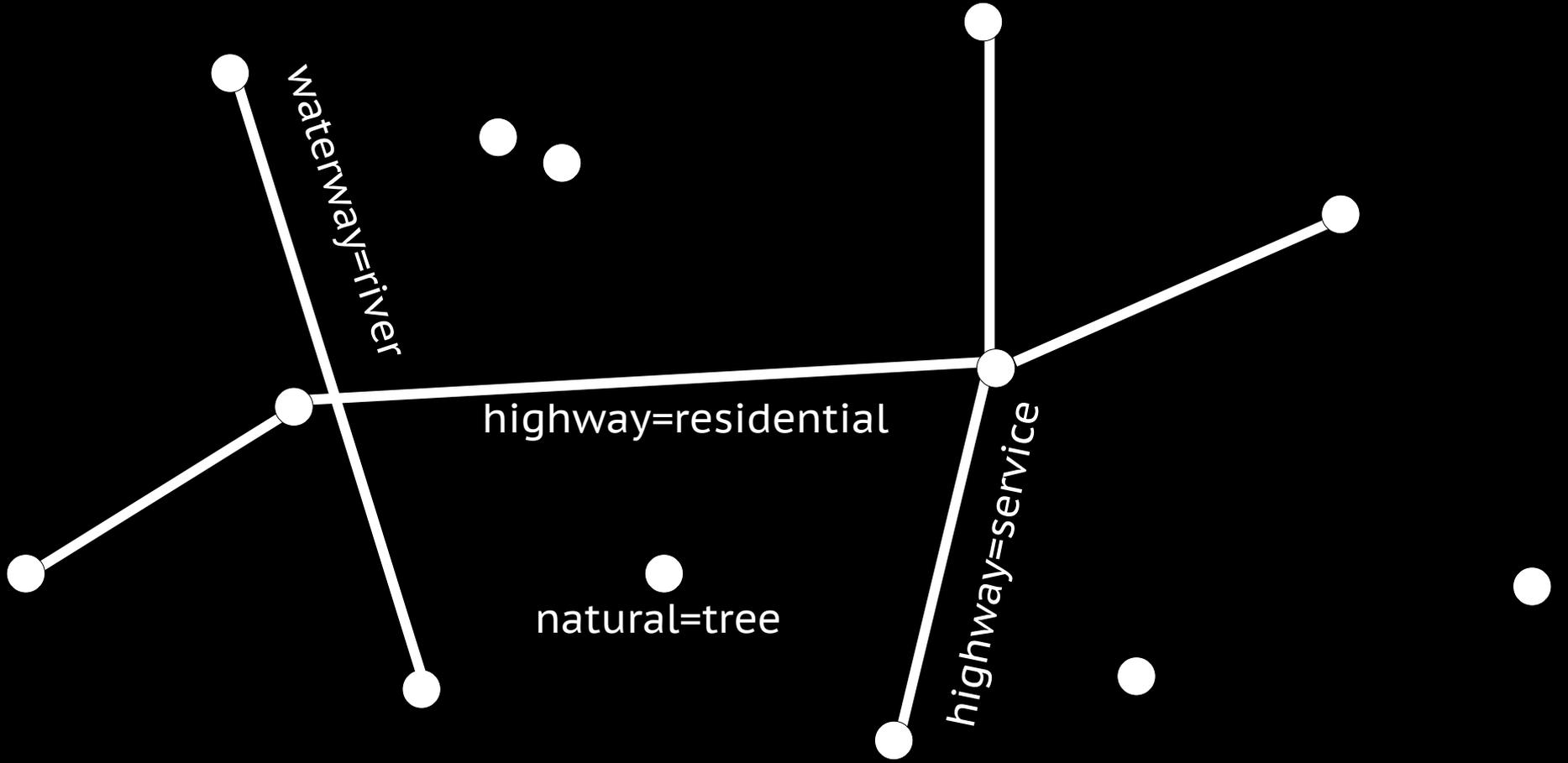
ВОЙТИ

# Используем OpenStreetMap

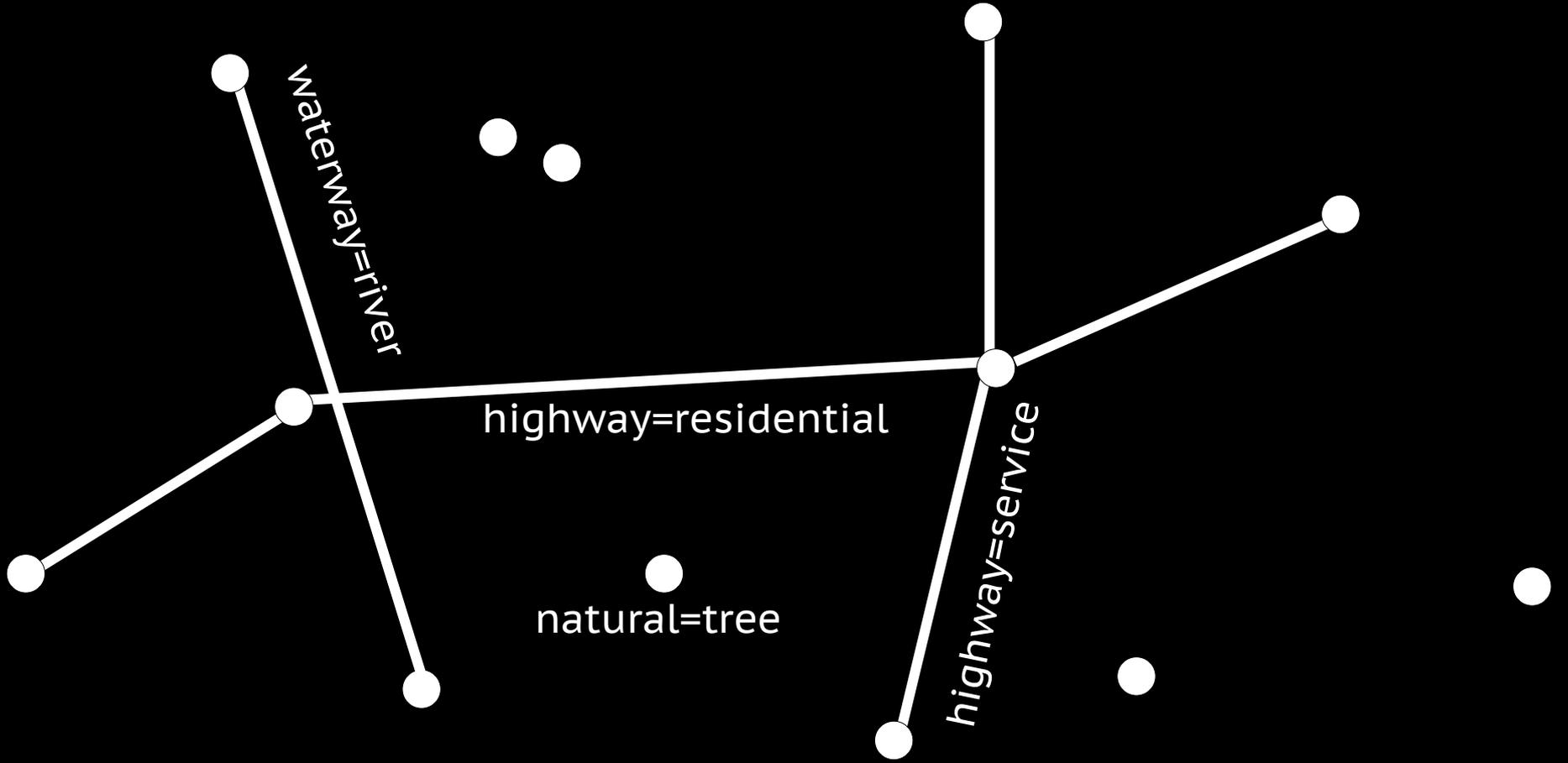
уже

hand drawn map  
of Toulouse





OSM придумали  
технари





# Planet OSM

The files found here are regularly-updated, complete copies of the OpenStreetMap.org database, and those published before the 12 September 2012 are distributed under a Creative Commons Attribution-ShareAlike 2.0 license, those published after are Open Data Commons Open Database License 1.0 licensed. For more

information, [see the project wiki](#).

**WARNING** Download speeds are currently restricted to 4096 KB/s due to limited available capacity on our Internet connection. [Please use torrents](#) or

## Complete OSM Data

[Latest Weekly Planet XML File](#)  
([torrent](#)) ([RSS](#))

**115 GB**, created 4 days ago.

md5: 18860c7437d2e40c7a41da49028889fc.

[Latest Weekly Changesets](#)  
([torrent](#)) ([RSS](#))

**5.0 GB**, created 4 days ago.

md5: a2712f80f6ae3d57a881ca2ad88a2af8.

[Latest Weekly Planet PBF File](#)  
([torrent](#)) ([RSS](#))

**63 GB**, created 4 days ago.

md5: 0a6977fb52077b89520c0eb5c9be0f77.

Each week, a new and complete copy of all data in OpenStreetMap is made available as both a compressed XML

## Using The Data

You are granted permission to use OpenStreetMap data by [the OpenStreetMap License](#), which also describes your obligations.

You can [process the file](#) or extracts with a variety of tools. [Osmosis](#) is a general-purpose command-line tool for converting the data among different formats and databases, and [Osm2pgsql](#) is a tool for importing the data into a Postgis database for rendering maps.

[Processed coastline data](#) derived from OSM data is also needed for rendering usable maps.

## Extracts & Mirrors

The complete planet is very large, so you may prefer to use one of [several periodic extracts](#) (individual countries or states) from third parties. [GeoFabrik.de](#) and [BBBike.org](#) are two providers of extracts with up-to-date worldwide coverage.

# Estonia

Country subdivisions →

BASEMAP

ELEVATION new

SATELLITE new

data.nextgis.com  
download.geofabrik.de

Vector geodata: easy to use layers, styles and project for your GIS.

Format:

GeoPackage (QGIS)

Current data 18.05.22

Historical data

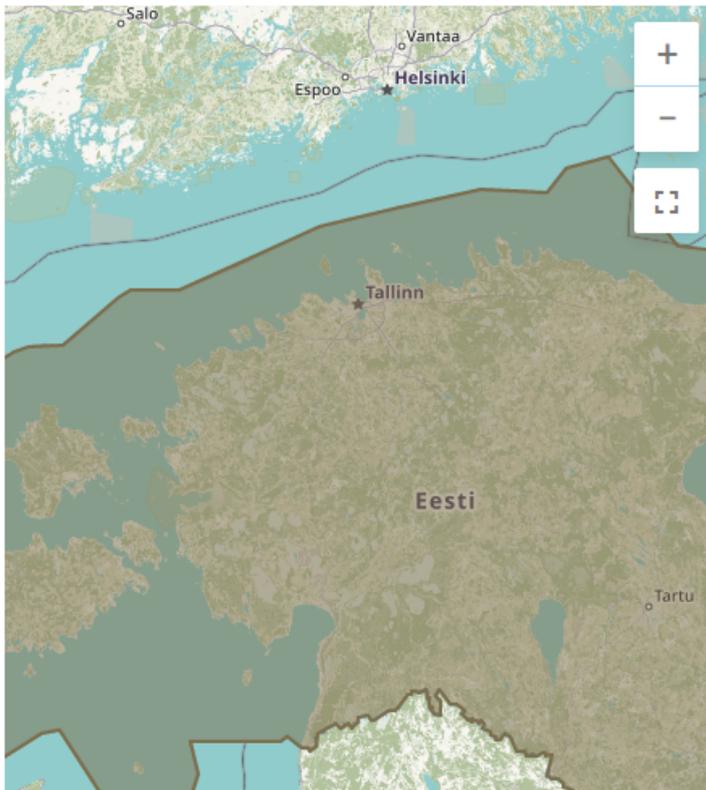
Samples

Data structure

## Select layers

Get 50% discount, if you order 5 layers or less.

- All layers
- Administrative boundaries 4929
- Administrative boundaries clipped by land area 4928
- Aerialways (lines) 23



# osmium-tool

- osmium extract
- osmium export -f pg
- osmium tags-filter
- 
- <https://osmcode.org>

# PostgreSQL (+PostGIS)



# Гуглояндексы состоят из

- Отображение
- Геокодирование
- Роутинг
- Поддержка
- Биллинг



Отображение



Шведская церковь  
Святого Михаила

Эстонская  
пятидесятническая  
церковь

Яановская церковь

Tallinn English College

Kaitseväe muuseum

R-kiosk

Wismari

Tõnismäe alajaam

University of Tartu, Faculty  
of Law in Tallinn

Kaarli kirik

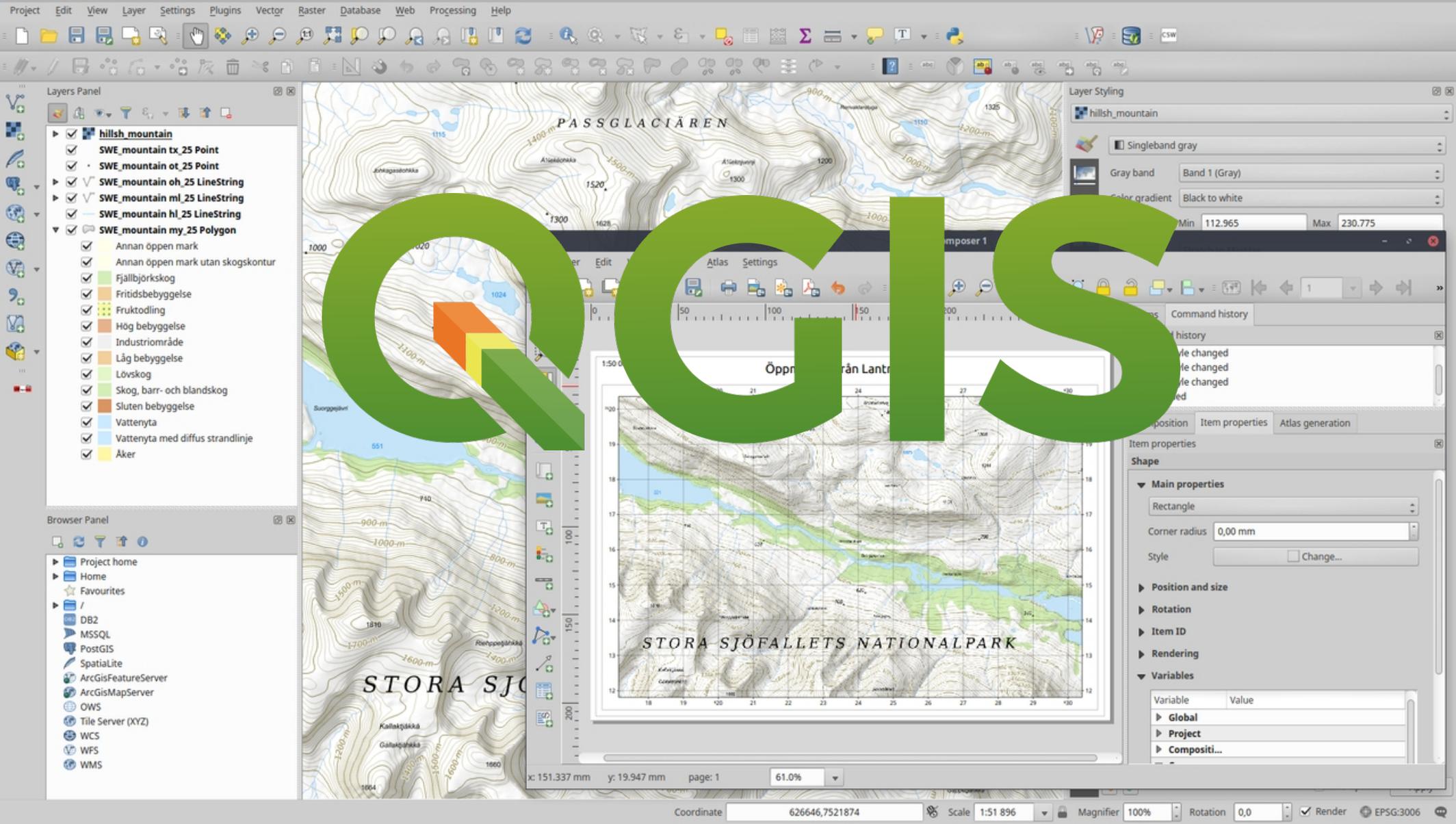
St. Barbara

Sveitsi maja

FinEst

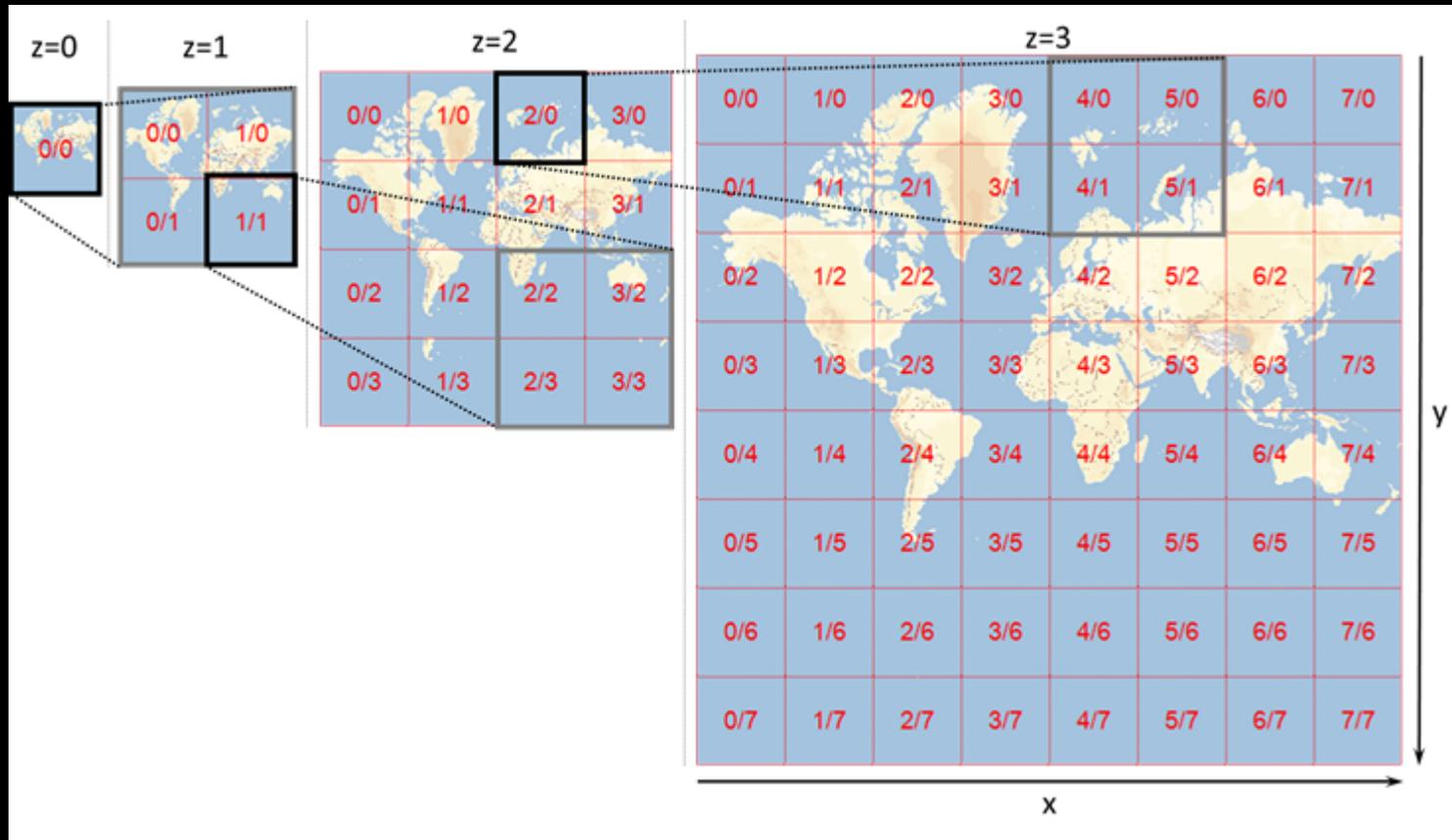
Kaitsepolitseiamet

Tallinna Prantsuse Lütseum



QGIS

# Тайлы



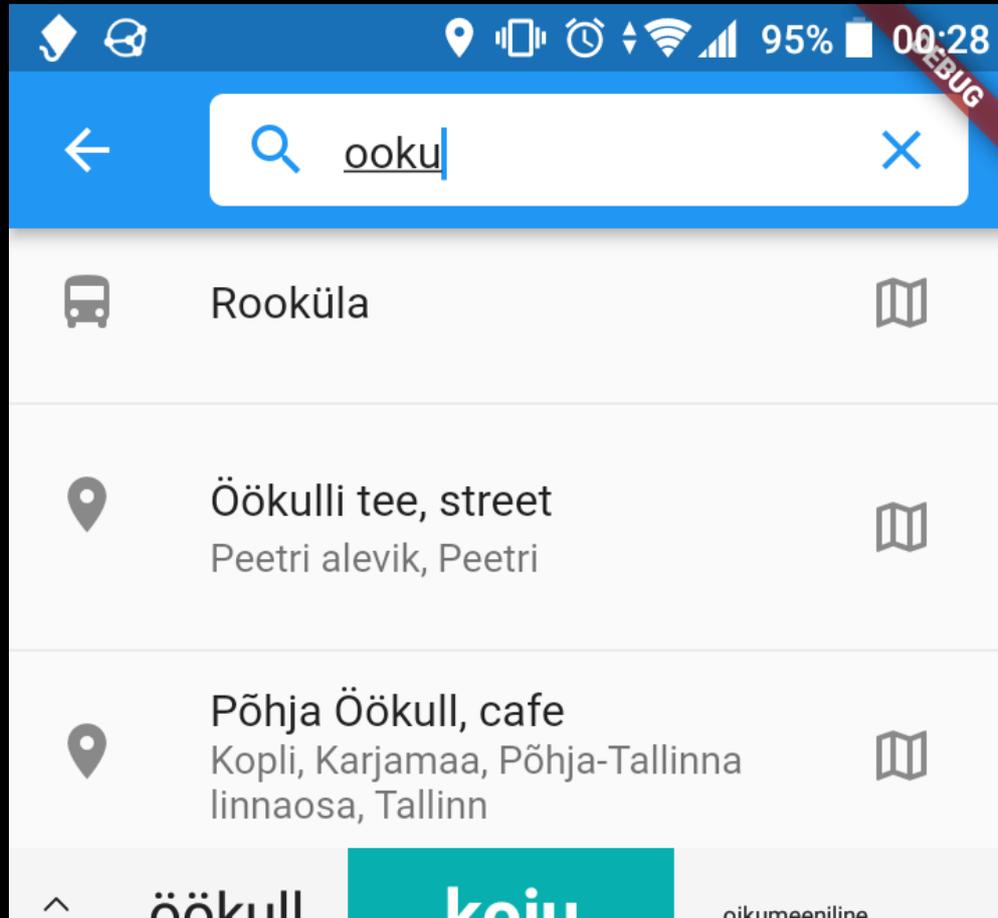
# Тайлы

- Растровые с [tile.openstreetmap.org](https://tile.openstreetmap.org/) / Mapnik / Map Machine
- Векторные с [data.maptiler.com](https://data.maptiler.com/) / Planetiler
- Библиотечки: Leaflet / MapLibre / Tangram

(см. OSM Wiki: Rendering и Vector Tiles)

Поиск / geocoding

# Easy Transit Tallinn



# Поиск

- Прямой: слова → объекты + координаты
- Обратный: координаты → объекты + слова
- Nominatim, Photon, Pelias, JRG

(см. [OSM Wiki: Addresses](#) и [Search Engines](#))

# Поиск



Маршруты / routing

# Прокладка маршрутов



# Прокладка маршрутов

- Алгоритмы известны, правила едины
- Требуют до фига памяти (или диска)
- OSRM, Valhalla, GraphHopper, BRouter
- Мультимодальный: OpenTripPlanner

(см. [OSM Wiki: Highways и Routing](#))

чѣта сложна

# Рисуем OpenStreetMap



OpenStreetMap

Правка



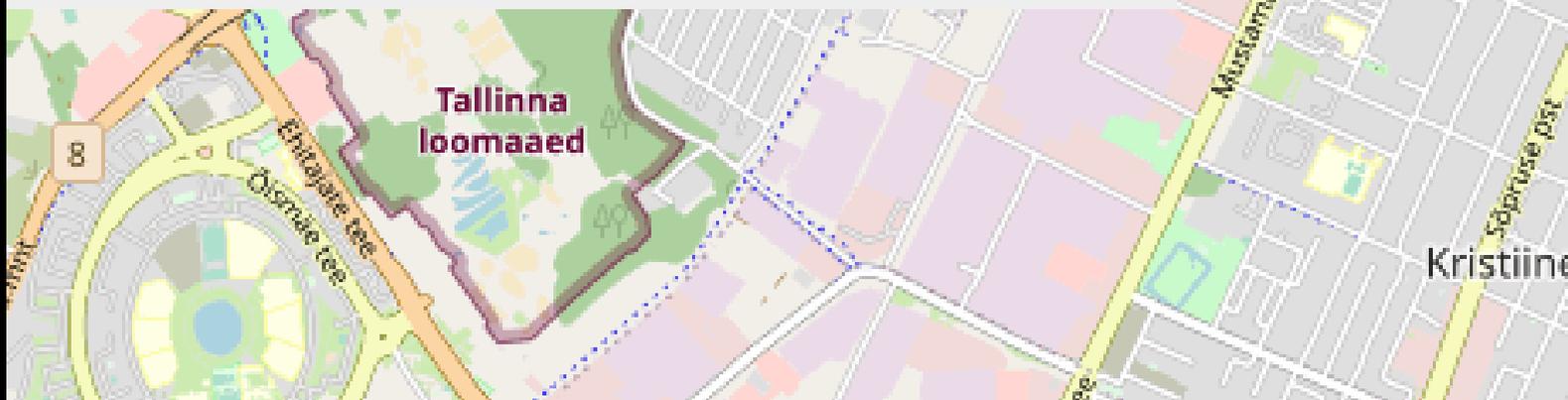
История

Экспорт

Поиск

Где это?

Найти





Редктировать объект

Тип объекта

	Паб	i
--	-----	---

Поля

Название			i
Rõhja Õöküll			+

Многоязычное название	
русский	
Полярная сова	

Адресная информация			i
---------------------	--	--	---

Точка

Линия

Полигон

1

Исследовать
Добавить объект
Отмена / Повтор
Сохранить

25 м

но AlexTheTux, Vitalts, juhanjuku, и ещё 20 другими

2.20.4

## &lt; Редактировать объект X

## v Тип объекта

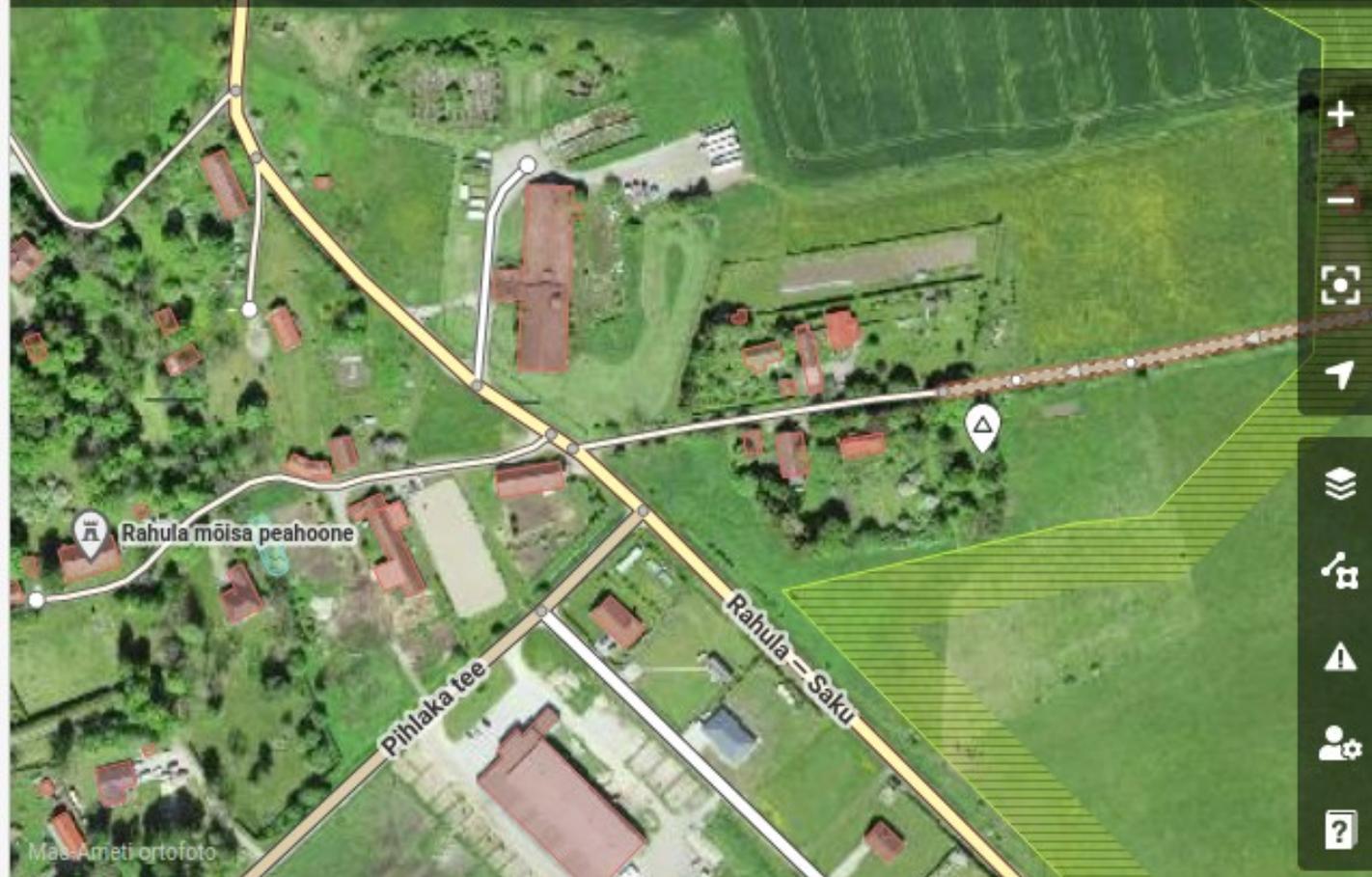
	Полевые и лесные дороги	i
--	-------------------------	---

## v Поля

Название	i
Имя собственное, без описаний (если...	+
Тип просёлочных дорог	 i
Скорее мягкая: укатанный грунт с приме ...	v
Дорожное покрытие	i
Asphalt, Unpaved, Paved...	v

[Посмотреть на openstreetmap.org](https://openstreetmap.org)

	 Точка	 Линия	 Полигон			 0
Исследовать	Добавить объект			Отмена / Повтор		Сохранить



Maa-Ameti ortofoto

150 м

ано juhanjuku, SviMik\_import\_Pikse, и ещё 7 другими

Aa

2.20.4



Точка

Линия

Полигон

Rapid



Исследовать

Добавить объект

Assist

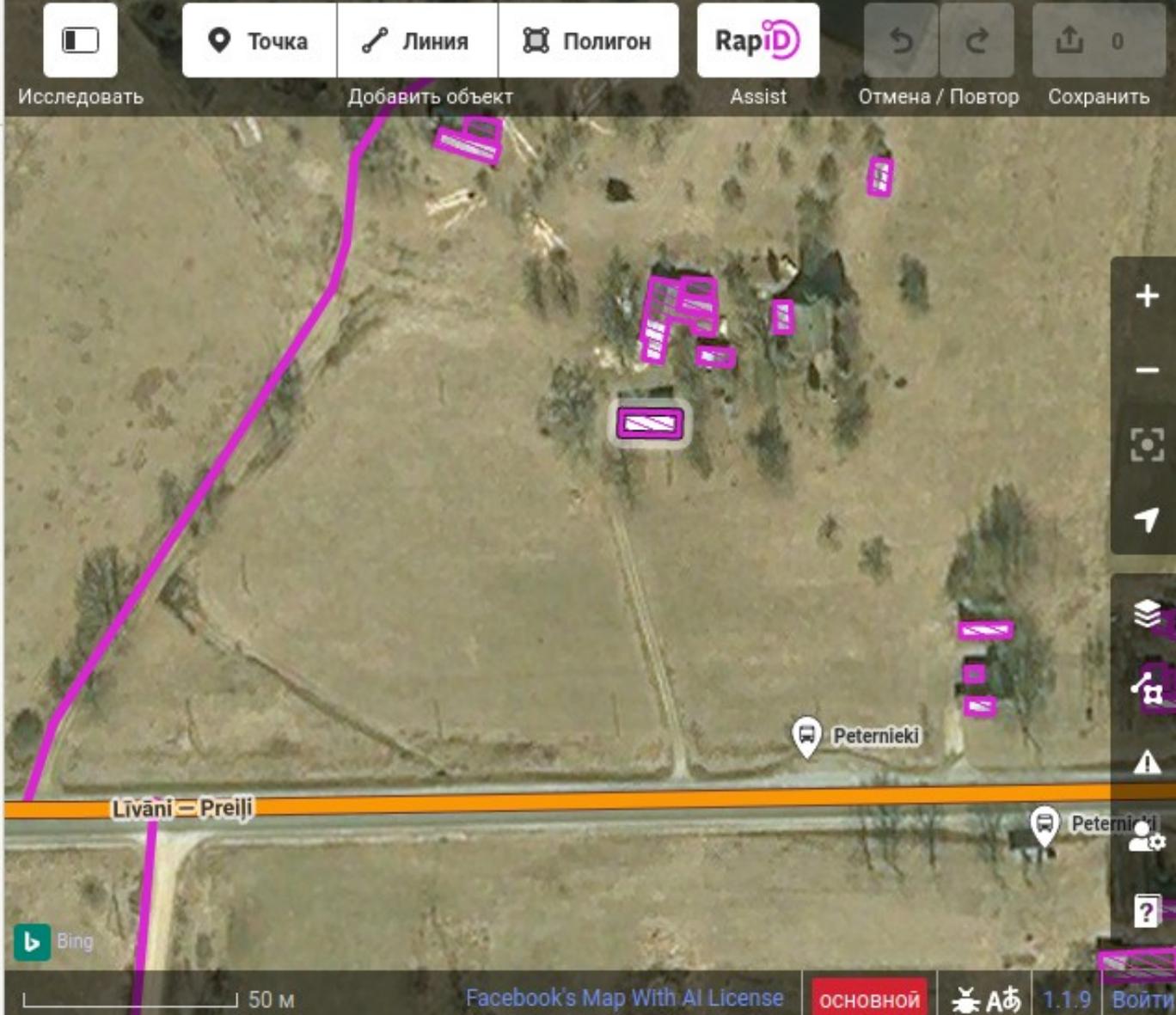
Отмена / Повтор

Сохранить

## Microsoft Buildings

Tags **building** yes

source microsoft/BuildingFootprints



Bing

Livāni - Preiļi

Paternieki

Paternieki

50 м

Facebook's Map With AI License

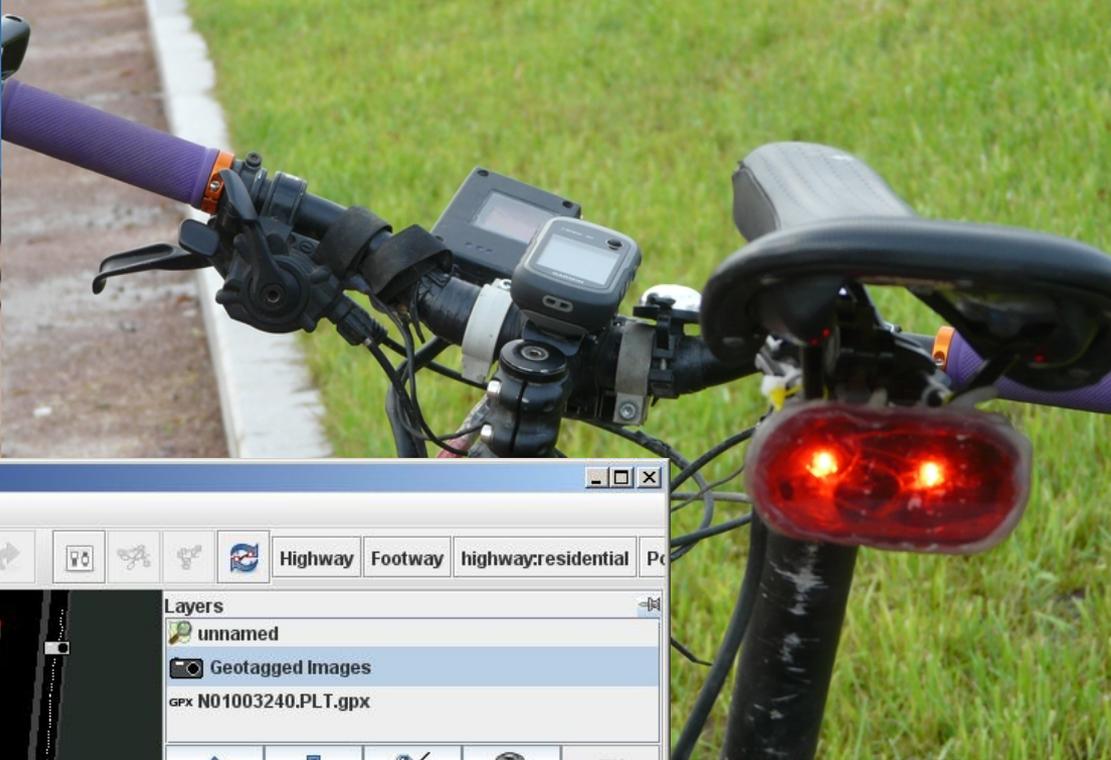
ОСНОВНОЙ



1.1.9

ВОЙТИ

Все в сад



Java OpenStreetMap - Editor

File Edit View WMS Tools Presets Help

Highway Footway highway:residential

Layers

- unnamed
- Geotagged Images
- GPX N01003240.PLT.gpx

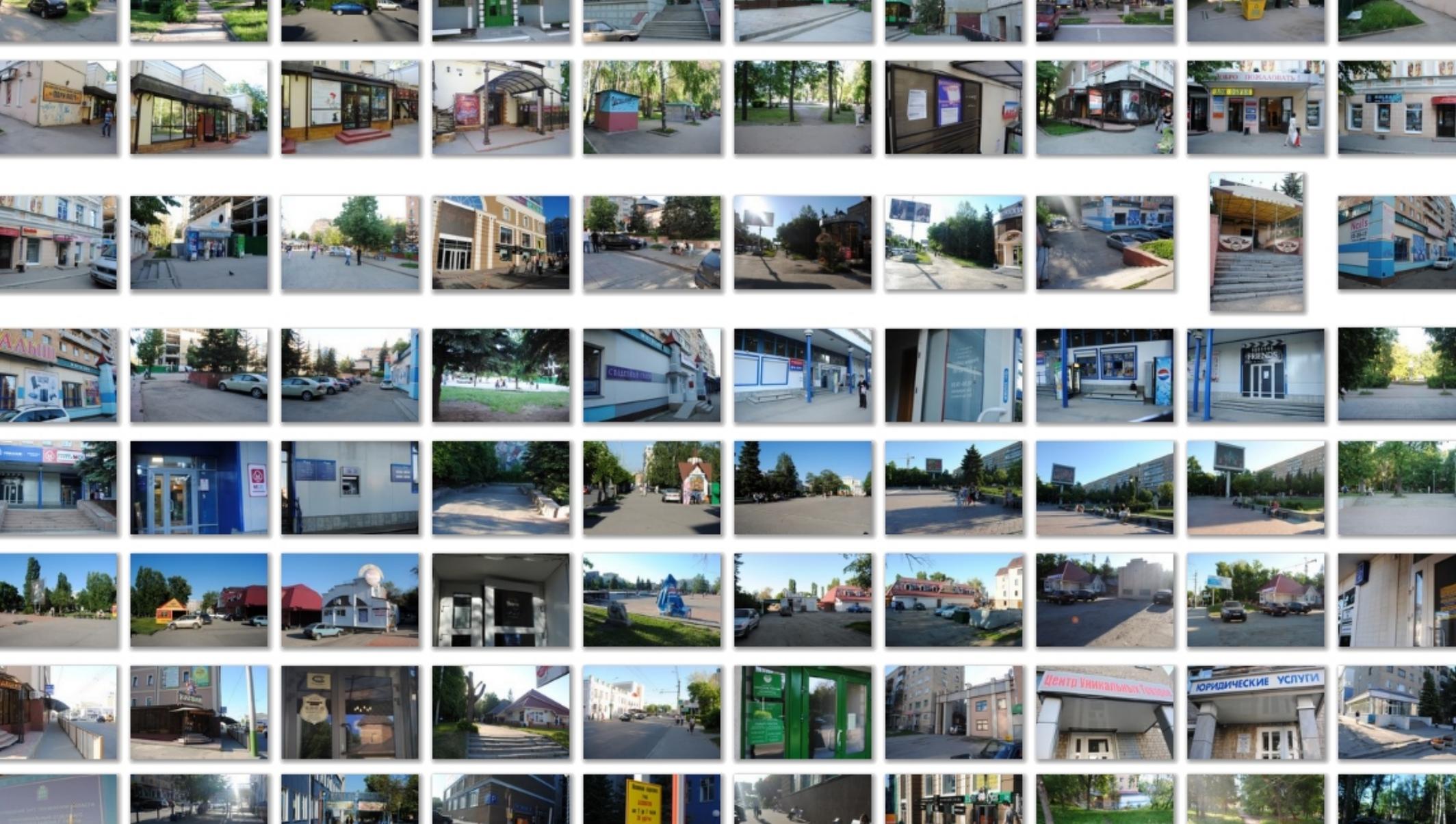
AgPifoJ - Geotagged pictures

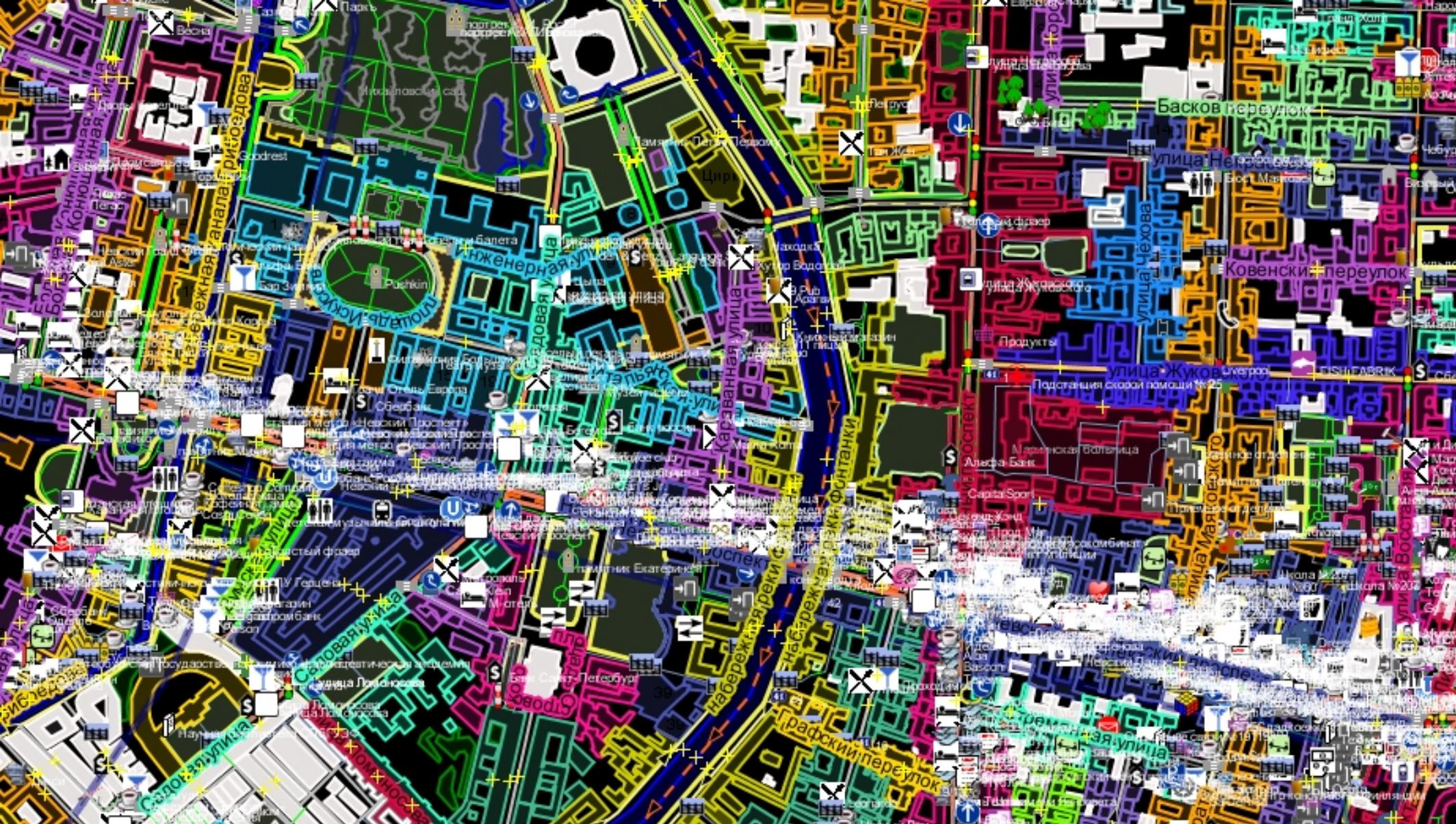
- CIMG0821.JPG
- Altitude: 68 m
- 2 km/h

A screenshot of the Java OpenStreetMap Editor interface. The main window shows a map with a red line representing a path or road. A scale bar indicates 113m. The interface includes a menu bar (File, Edit, View, WMS, Tools, Presets, Help), a toolbar with various editing tools, and a Layers panel on the right. The Layers panel shows 'unnamed', 'Geotagged Images', and 'GPX N01003240.PLT.gpx'. Below the Layers panel, there is a section for 'AgPifoJ - Geotagged pictures' which displays a photo thumbnail for 'CIMG0821.JPG' with an altitude of 68 m and a speed of 2 km/h. The photo shows a street scene with buildings and parked cars.

Lat/Lon

Move objects by dragging; Shift to add to selection; Shift-Ctrl to rotate selected; or change selection





Гулять — весело

Вбивать в карту — нет



Abbaye de la Cambre  
- Abdij ter Kameren

Palais de la  
folle chanson

Apocalypse  
(347)

Ambassade  
d'Italie

Tout près  
tout prêt

Carrefour  
Market

CADO

Bar 77

La mirabelle

El Café

La Bastoche  
(473)

Cimetière d'Ixelles  
Elsense Begraafpl

Avenue Jeanne - Johannaalaan

Le 102

Université Libre de  
Bruxelles (Solbosch)

M Presse universitaire  
de Bruxelles

F1

P2

P3

P4

AW

AX

AY

Square Groupe G

D

Potager  
collectif

Théâtre  
de Poche

Les Jeux  
d'Hiver

MAPS.ME

du Rosaire  
de Rozenkranskerk

Église Saint-Adrien -  
Sint-Adrianus kerk (29)



Abbaye de la Cambre  
- Abdij ter Kameren

Palais de la  
folle chanson

Apocalypse  
(347)

Ambassade  
d'Italie

Tout près  
tout prêt

Carrefour  
Market

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La mirabelle

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(473)

Cimetière d'Ixelle  
Elsense Begraafpl

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Le 102

Université Libre de  
Bruxelles (Solbosch)

M Presse universitaire  
de Bruxelles

Square Groupe G

Théâtre  
de Poche

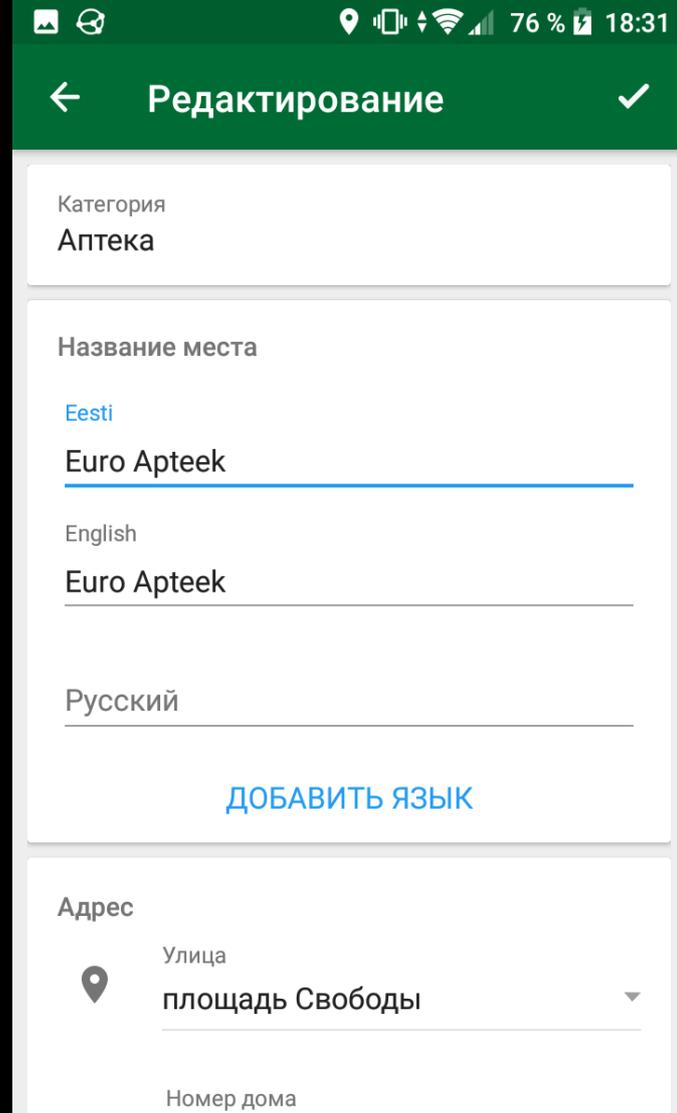
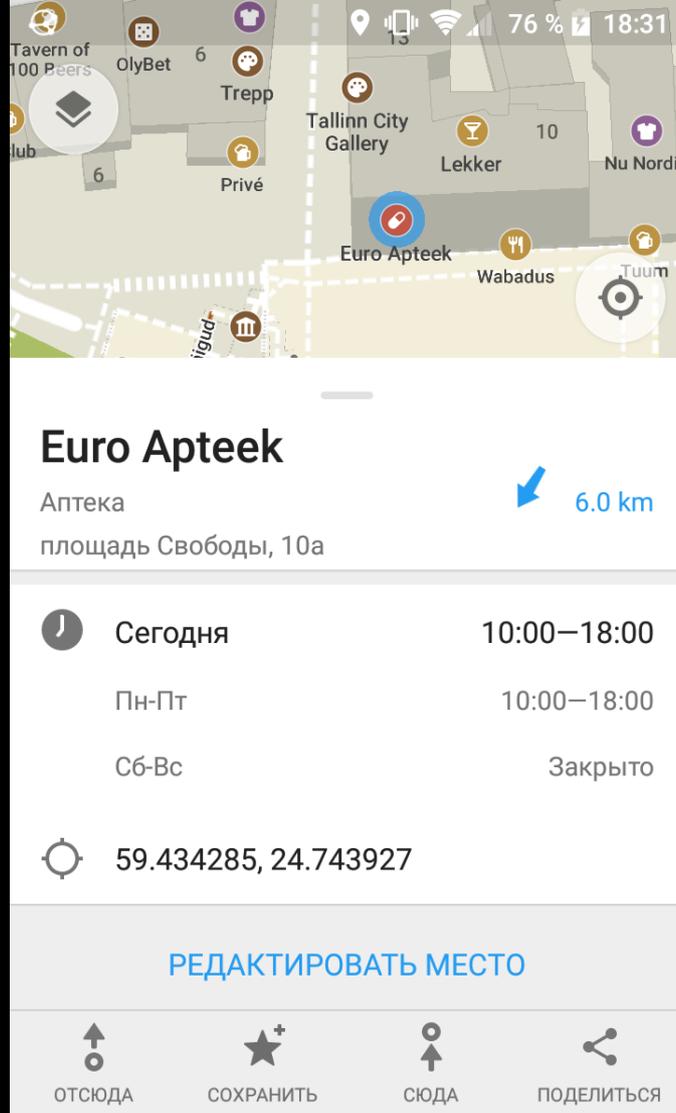
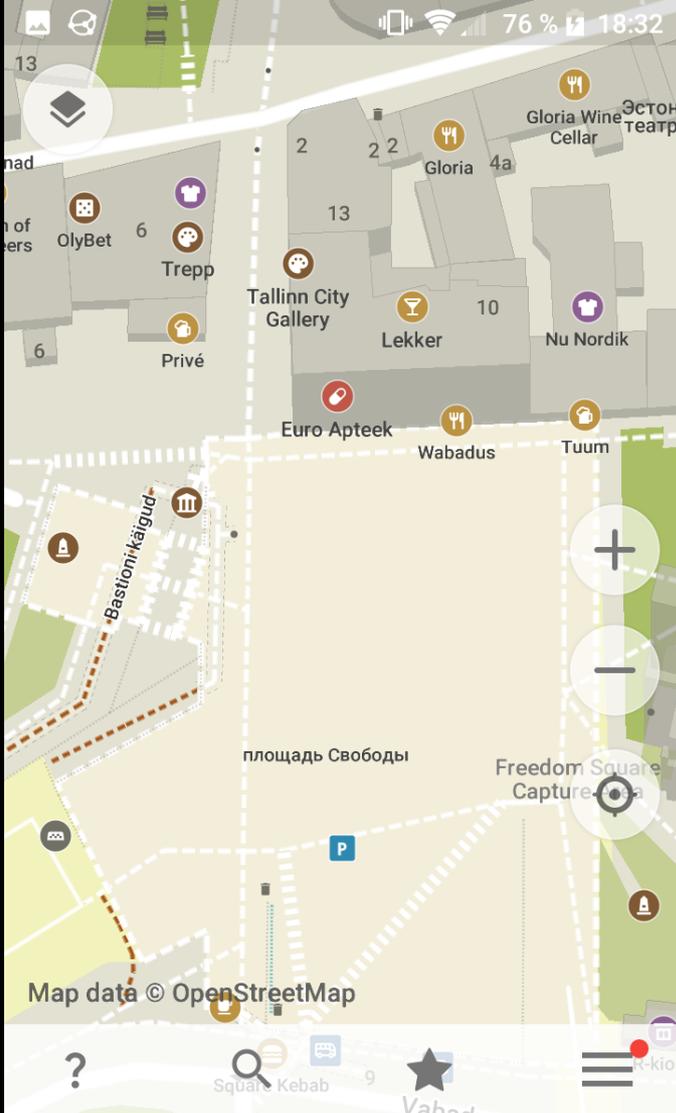
Les Jeux  
d'Hiver

Potager  
collectif

Organic Maps

du Rosaire  
de Rozenkranskerk

Église Saint-Adrien -  
Sint-Adrianus kerk (29)

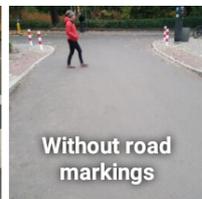


# StreetComplete

**What kind of crossing is this?**

*Пешеходный переход*

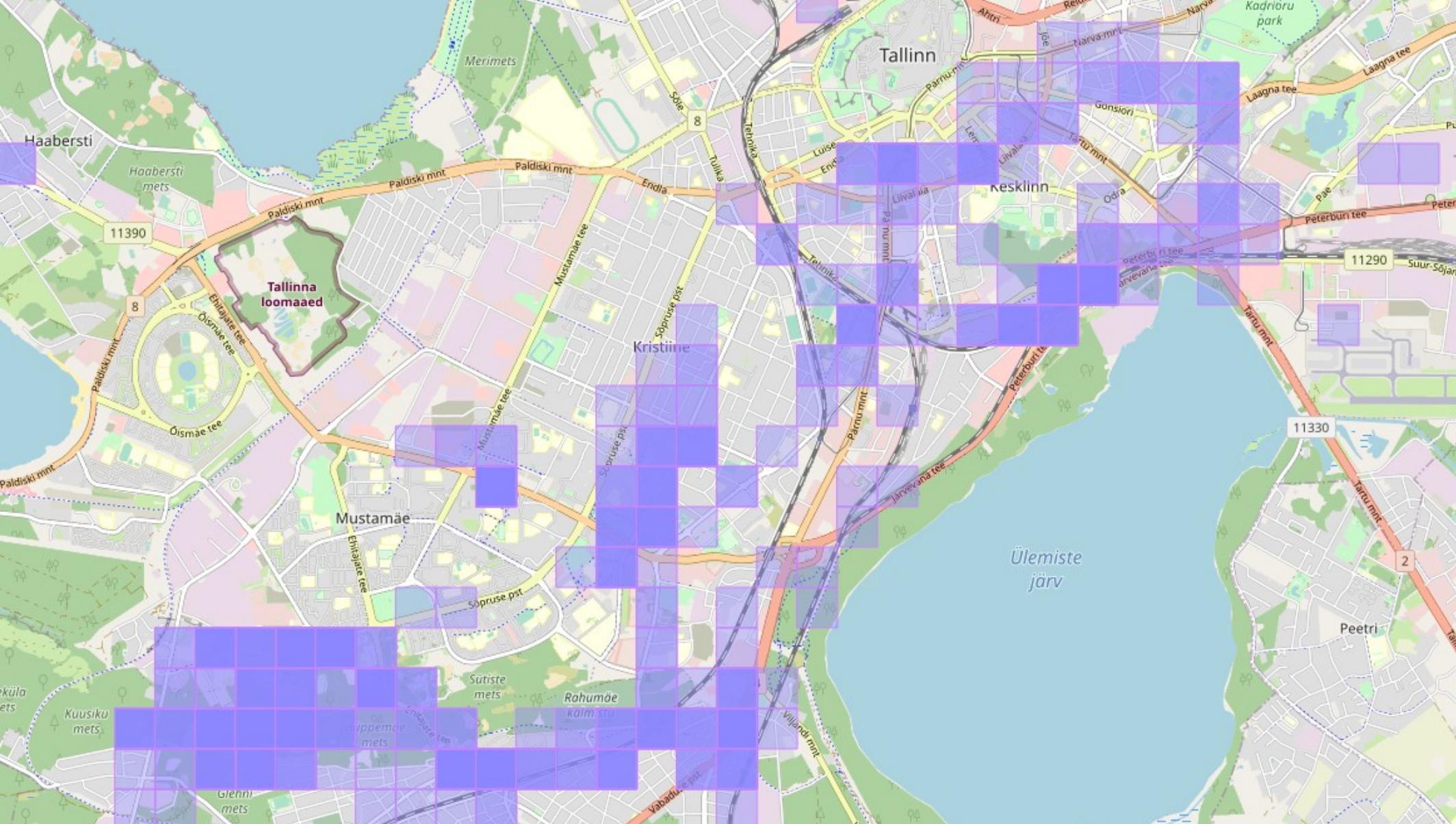
Select one:



CAN'T SAY...

Quest selection an...  
Preset: Default

- | Quest type   | Enabled                             |
|--|-------------------------------------|
| Does this stop have tactile paving?                                      | <input checked="" type="checkbox"/> |
| What's the name of this stop?  | <input checked="" type="checkbox"/> |
| What's the reference number of this stop?<br><i>Never shown in Eesti</i> | <input checked="" type="checkbox"/> |
| Is this stop lit?  | <input checked="" type="checkbox"/> |
| What barriers are used at this railway crossing?                         | <input checked="" type="checkbox"/> |
| What kind of car wash is this?   | <input checked="" type="checkbox"/> |
| Does this bench have a backrest?   | <input checked="" type="checkbox"/> |
| Is this picnic table covered (protected from rain)?                      | <input checked="" type="checkbox"/> |
| What's the structure of this   | <input checked="" type="checkbox"/> |



Я снова написал  
приложение

# Every Door

100e

102

104

106

Every Door

Rimi Hypermarket

2. Haabersti

1. Apotheka

3. greengrocer «EwBerry»

4. Pirogoff

5. brewery «Raasiku õlletehas»

6. «MySushi Express»

7. «Värsketehurek ja»

8. Accenta Kodu & Kook

9. Masku

Legend:

- Скамейка
- Spring Rider
- Детская площадка
- Песочница
- Горка
- Качели (детская)

1. «Apotheka»  
Mo-Sa 10-20; Su 10-19  
нет

2. «Haabersti»  
нет

3. greengrocer «EwBerry»  
нет

4. «Pirogoff»  
We-Su 12-21

5. brewery «Raasiku õlletehas»  
Mo-We 15-21; Th 12-21; Fr-Sa 11-22; Su 11-20  
нет

6. «MySushi Express»  
10-21 ...888

7. «Värsketehurek ja»

# Магазины и заведения

Every Do

Maa-Ameti ortofoto

✓ 1. 🐱 «Kika» 🕒 09-21 📞 ..440	✓ 3. parcel_locker «DPD» нет 📞 🌐 🕒
✓ 2. 🍔 «Pizza kiosk» 🕒 Mo-Fr 11-21; Sa 12-21; Su 12-20 📞 ..724 нет 🌐	✓ 4. 🍷 «Arev ilusalong» 🕒 Mo-Fr 10-19; Sa Su 10-18 нет 📞 🌐
✓ 5. green	нет 📞

Pizza Fast Food

Название  
Pizza kiosk

et eesti

🏠 148, Ehitajate tee 2, Päevalille

👍

🕒 Mo-Fr 11-21  
Sa 12-21  
Su 12-20

♿ да ограничен нет

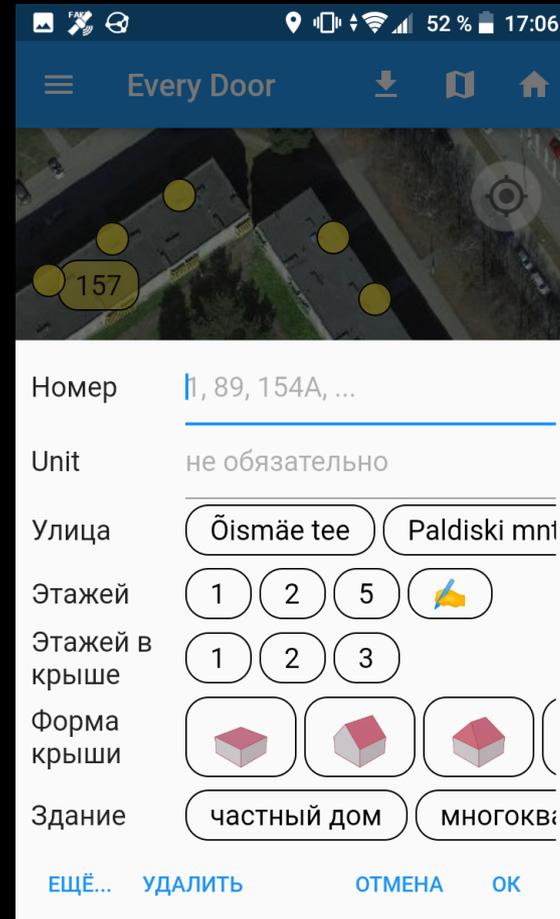
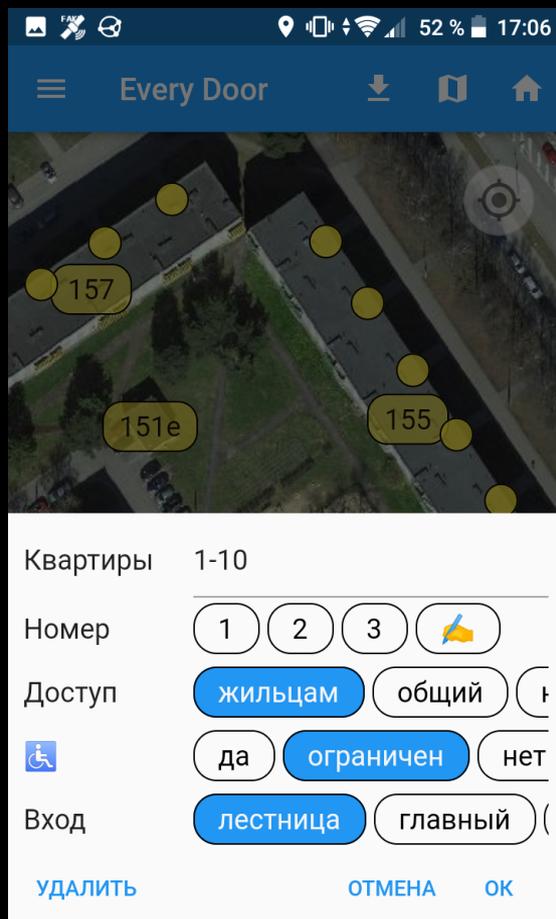
📶 общий клиентам нет

🏪 принимают нет

ба

Башинформсвязь Телефон	ЛГБТ+ Бар amenity=bar
Мусорный бак amenity=waste_disposal	Общественная баня amenity=public_bath
Пищевой банк amenity=social_facility	Военно-морская база landuse=military
Оптовая база shop=trade	Крепостная башня man_made=tower
Водонапорная башня man_made=water_tower	Надувной батут playground=cushion
Организация банкетов craft=caterer	Магазин газовых баллонов shop=gas
Солнечная батарея на крыше power=generator	Площадка для бадминтона leisure=pitch

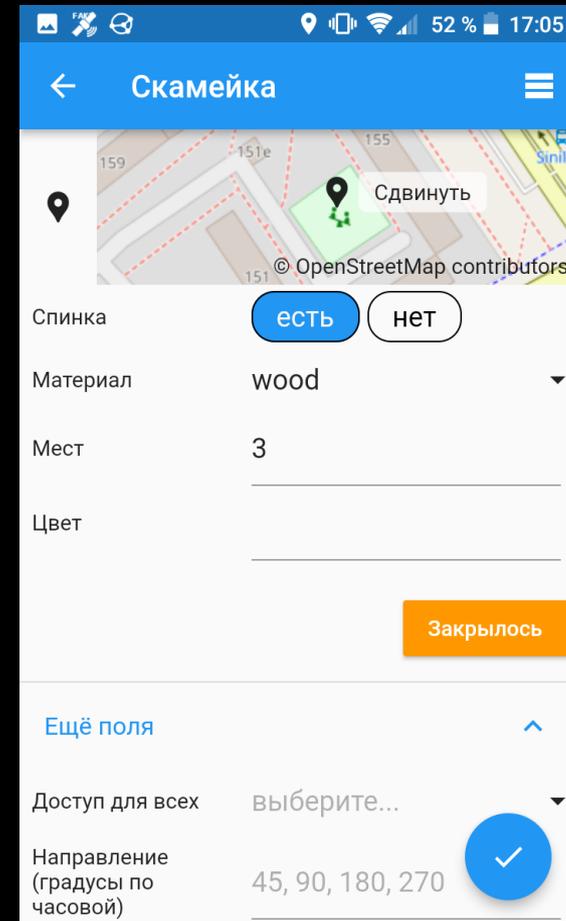
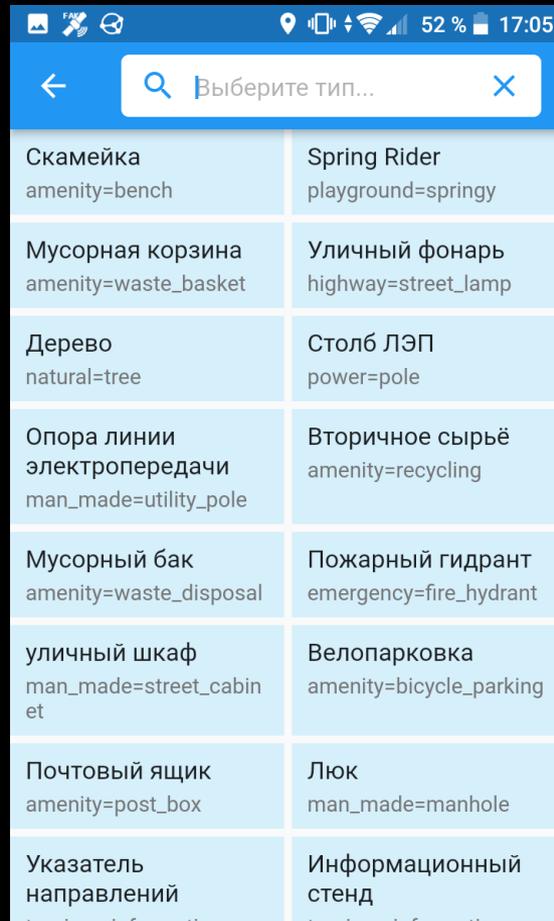
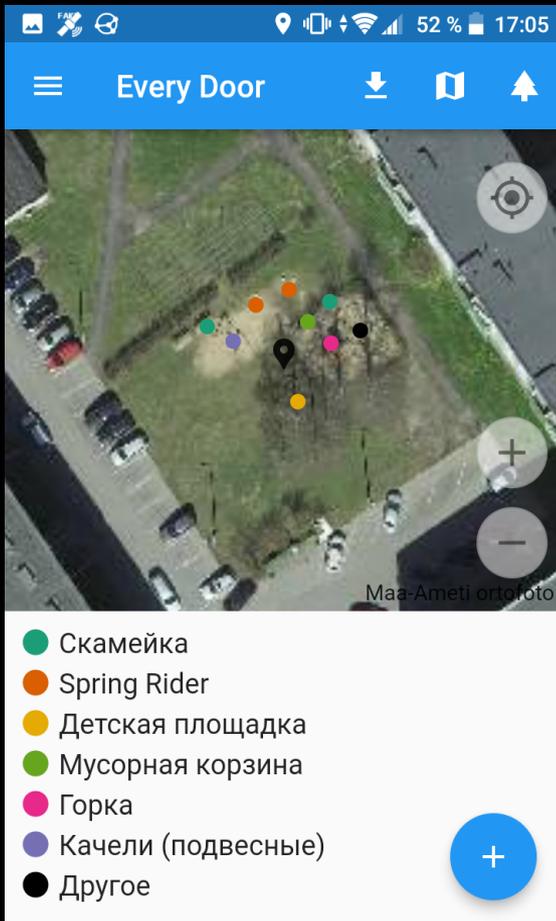
# Подъезды и здания



# Микромаппинг



# Микромаппинг



-3 к удовольствию от прогулки

+14 к удовлетворённости результатом



Every Door

(iOS + Android)



StreetComplete

(Android)

Погоуляем?

# OpenStreetMap

came to

# Спасибо!

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