



OsmAnd
MAPS & NAVIGATION

Public Transport Navigation





Who we are

- We are a small team of 10 persons
- 9 years of developing
- Open source (github)
- Over 100 contributors
- More than 1.5 million active users





Four general projects

OsmAnd Maps & Navigation

android



OsmAnd Maps

iOS



OsmAnd Online GPS Tracker

android



Open Place Reviews

Android & iOS





Timeline of the project

- Idea on SoTM - 2018
- Start project - September 2018.
- Beta testing - February 2019.
- The first release of Public Transport
 - OsmAnd 3.3 (March 2019)
- Now we are testing and improvement Public Transport



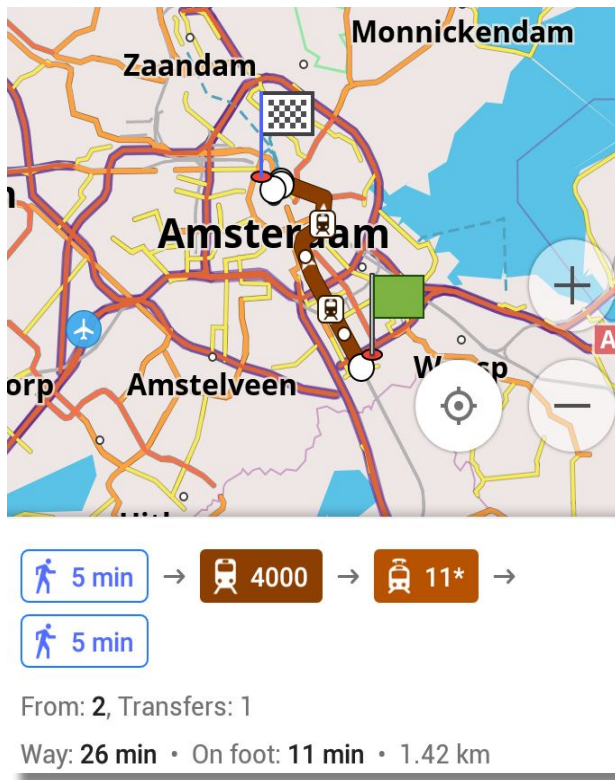
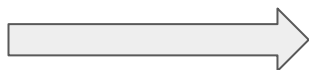


Who use Feature of Public Transport

Travelers



OSMers





How does it work

Tagging schema - The New Public Transport Schema (PTv2)



OpenStreetMap

Правка История Экспорт

GPS-треки Дневники участников Авторские права Помощь

Поиск Где это? Найти

Отношение: Автобус №100 "ДС Славинского - Аэропорт "Минск-1" (8007752)

дадау абмежаванье хуткасьці

Отредактировано около 2 месяцев назад пользователем [tbicr](#)

Версия #11 · Пакет правок #72575658

Теги

name	Автобус №100 "ДС Славинского - Аэропорт "Минск-1"
public_transport:version	2
ref	100
route	bus
type	route

Участствует в

Отношение Автобус №100 (954693)

Участники

- Точка ДС "Славинского" (5184922391) в роли stop_entry_only
- Точка ДС "Славинского" (2852484300) в роли platform_entry_only
- Точка Севастопольский парк (2886756981) в роли stop
- Точка Севастопольский парк (3431374661) в роли platform
- Точка Большая Слесья (2886740619) в роли stop
- Точка Большая Слесья (767183528) в роли stop

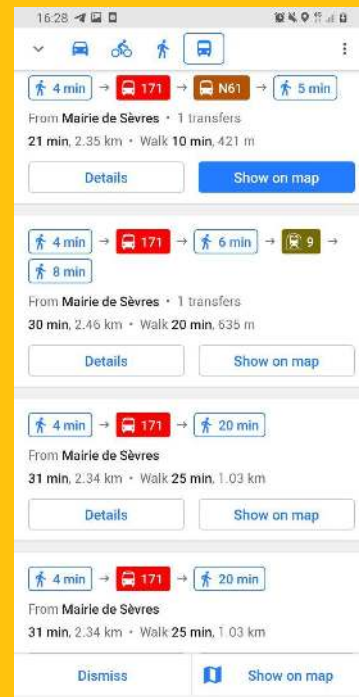
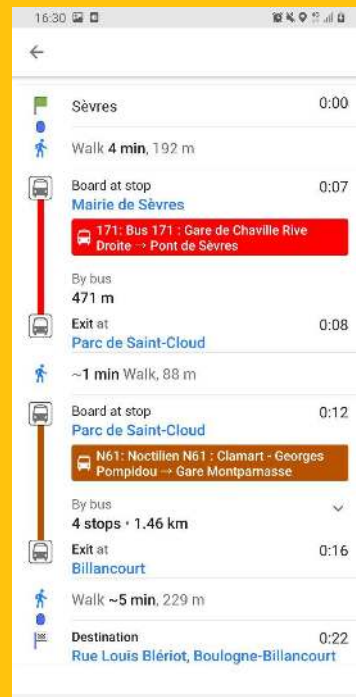
1 km 3000 ft

© Участники OpenStreetMap



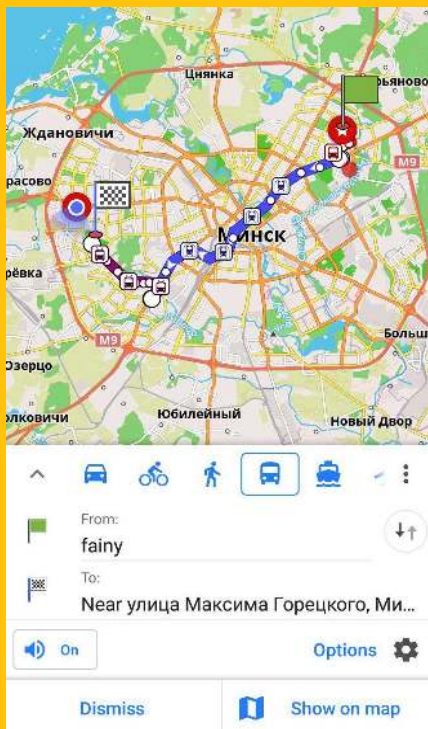
How does routing works

- Update your OsmAnd app to version 3.3 or higher
- In Public transport profile specify the start and end points of the route
- OsmAnd selects the best routes
- You can see route details
- You should choose a route and display it on the map

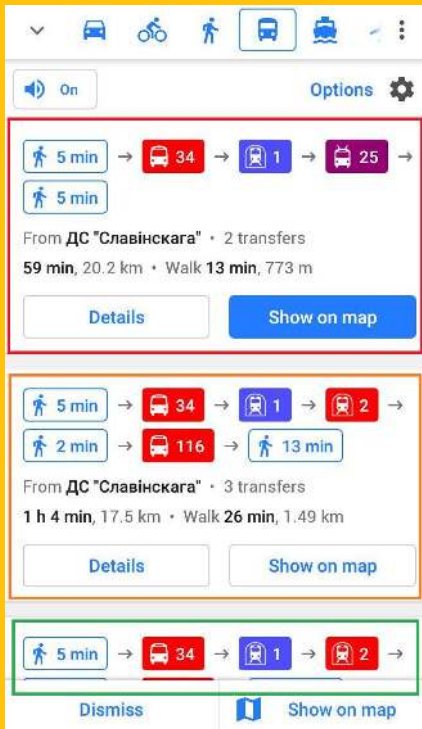




What do you see in OsmAnd



1

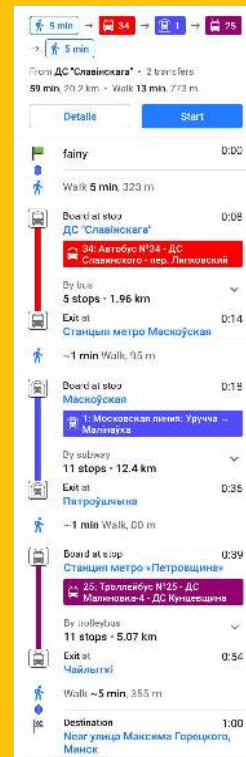


2

3

...

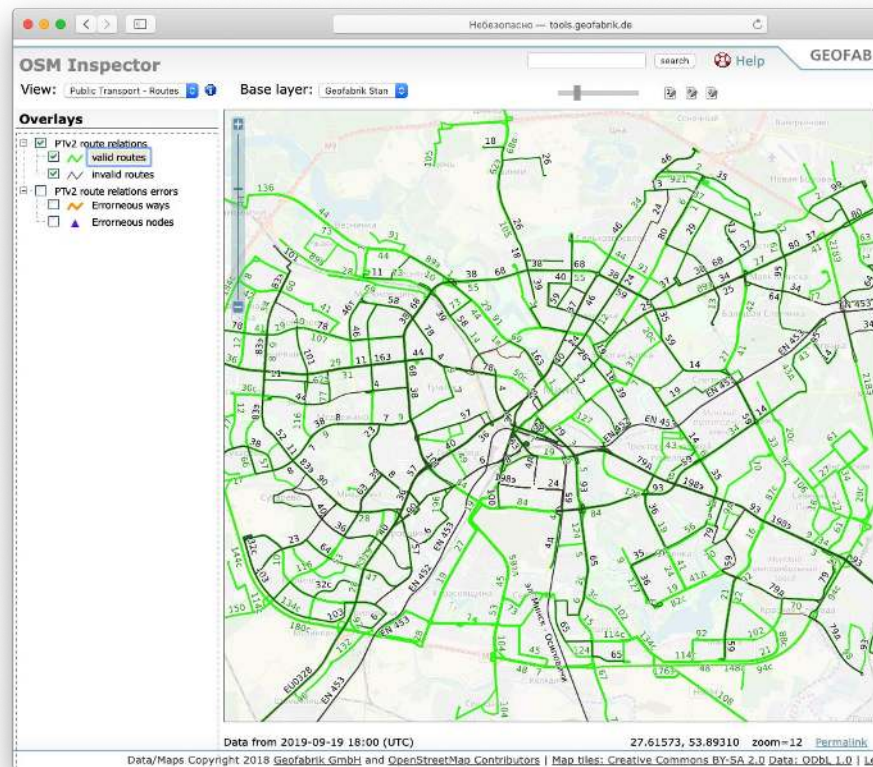
Details





How to check Public Transport routes

Guideline for public transport
osmand.net/blog/guideline-pt





Current problems with Public Transport

- Duplicate routes
- No full-service information
- No facilities for handicapped passengers
- No support of transport tag *interval*
- No support of transport tag *opening:hours*





Main Problem - timetable

Search results for a route from Bergheimer Str. 109/1, 69115 Heidelberg to Langgewann 9, 69121 Heidelberg.

Options: Leave now, OPTIONS

Send directions to your phone

Result 1: 4:44 PM–5:03 PM, 19 min
Route: Walk > Bus 32 > Bus 37 > Walk
4:48 PM from Betriebshof
17 min, every 12 min
[DETAILS](#)

Result 2: 5:01 PM–5:13 PM, 12 min
Route: Walk > Bus 24 > Walk



Map showing a route from Stadionweg to Langgewann 9. The route is highlighted in red and blue, indicating different transport modes.

Legend:

- 10 min (Walk)
- 12 min (Walk)
- 24 min (Bus)
- N57 (Train)

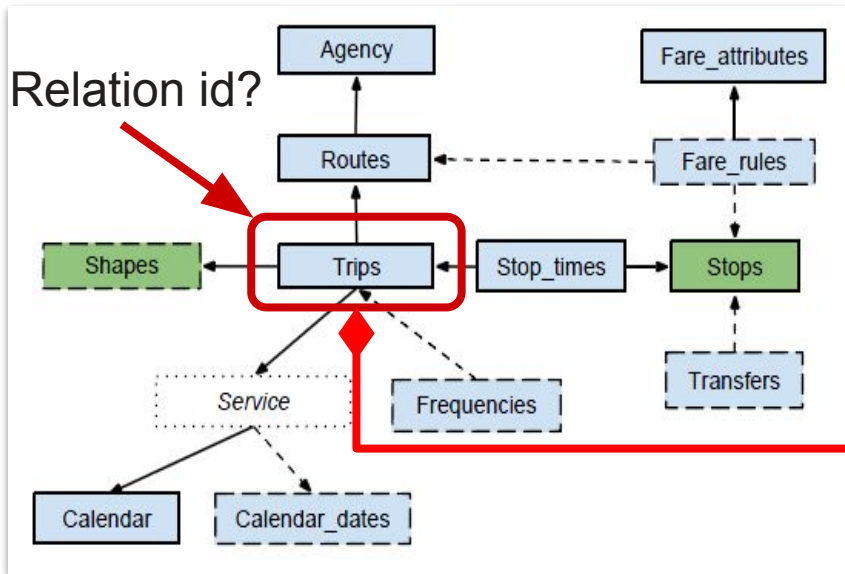
From Stadionweg • 1 transfers
38 min, 5.01 km • Walk 22 min, 1.15 km

[Details](#) [Start](#)



What can we do to solve it

Relation id?



Relation: Bus 33: Emmertsgrund => Ziegelhausen Köpfel (62203) x

Add bus 20

Edited 8 days ago by Joker234

Version #251 · Changeset #74465817

Tags

colour	#0068B3
from	Emmertsgrund
name	Bus 33: Emmertsgrund => Ziegelhausen Köpfel
network	VRN

TripID?

Relation: Bus 33 (2617910) x

update colours for routes

Edited almost 2 years ago by sedot

Version #4 · Changeset #54179433

Tags

colour	#0068B3
name	Bus 33
network	VRN
ref	33
route_master	bus
type	route_master

Part of

Relation Linienbündel "Heidelberg" (2586696)

Members

- Relation Bus 33: Emmertsgrund => Ziegelhausen Köpfel (62203)
- Relation Bus 33: Ziegelhausen Köpfel => Emmertsgrund (2617909)

GTFS

OSM route

OSM Master route



We have the Tool, we don't have data

- Store tripId with GTFS link in OSM
 - TripID is not stable in GTFS
- Store OSM relation id in GTFS trip table
 - RelationID is not stable enough
- Project that collects GTFS links and augments **trip** table with relation Id based on algorithms and manual corrections



Thank you!

