

# OpenStreetMap & Wikimedia

## AWESOME TOGETHER

**WIKIMANIA**  
**SINGAPORE**

Dennis Raylin Chen / Supaplex  
Eugene Alvin Villar / seav



A stylized illustration of a pink and purple hibiscus flower with green leaves and small red berries, set against a blue background with a white grid pattern. The illustration is partially obscured by a dark horizontal band.

# OpenStreetMap? What's that?

**WIKIMANIA  
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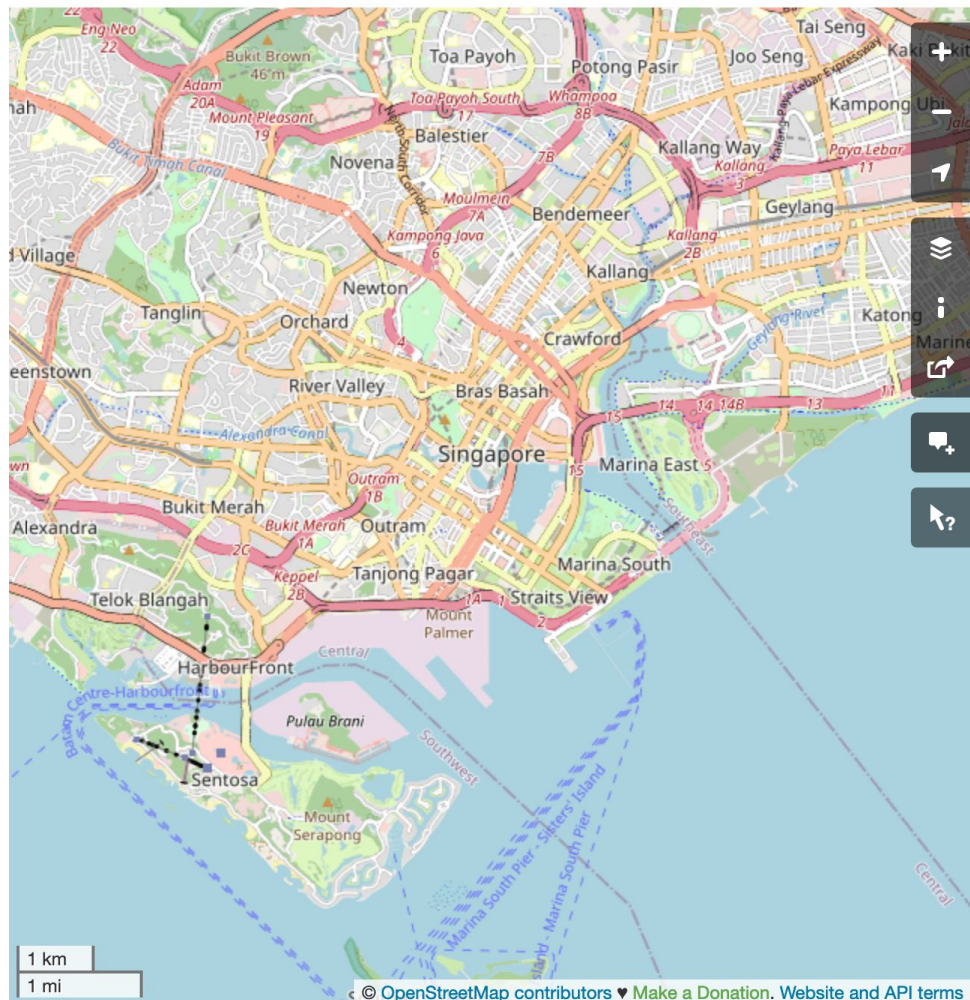


# OSM?



**OpenStreetMap** is the largest crowdsourced project to map the whole world!

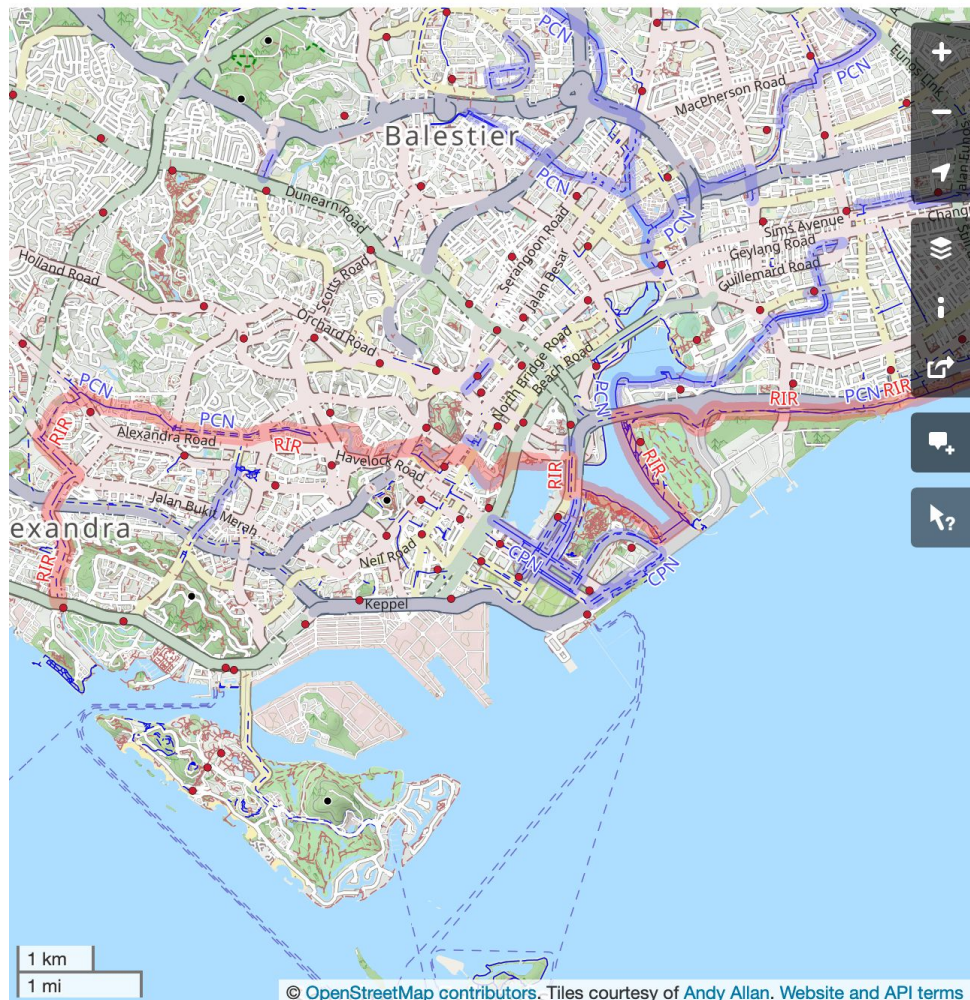
OpenStreetMap



# OSM?



Usual way to introduce OSM:  
*“OpenStreetMap is like Wikipedia for maps”*





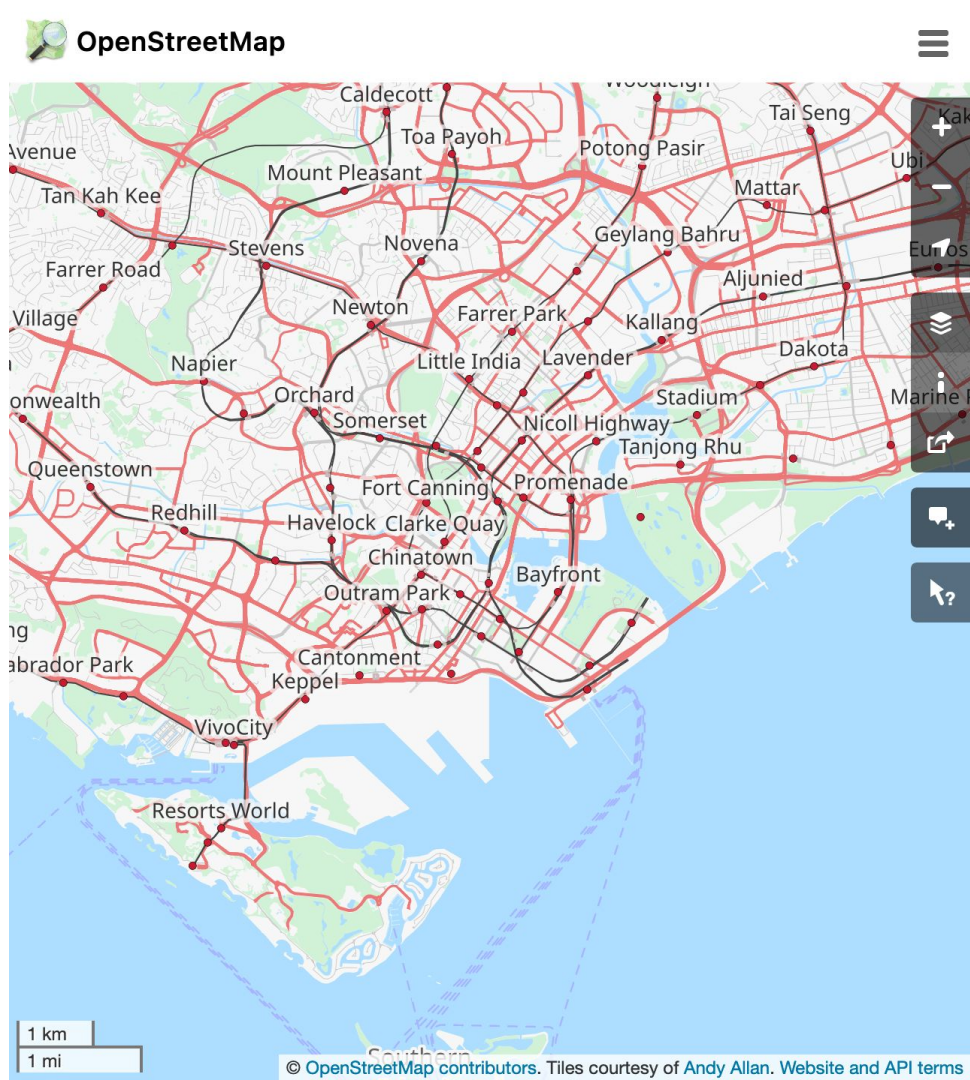
# OSM?



More accurate way  
to introduce OSM:

*“OpenStreetMap is  
like Wikidata for  
geographical data”*

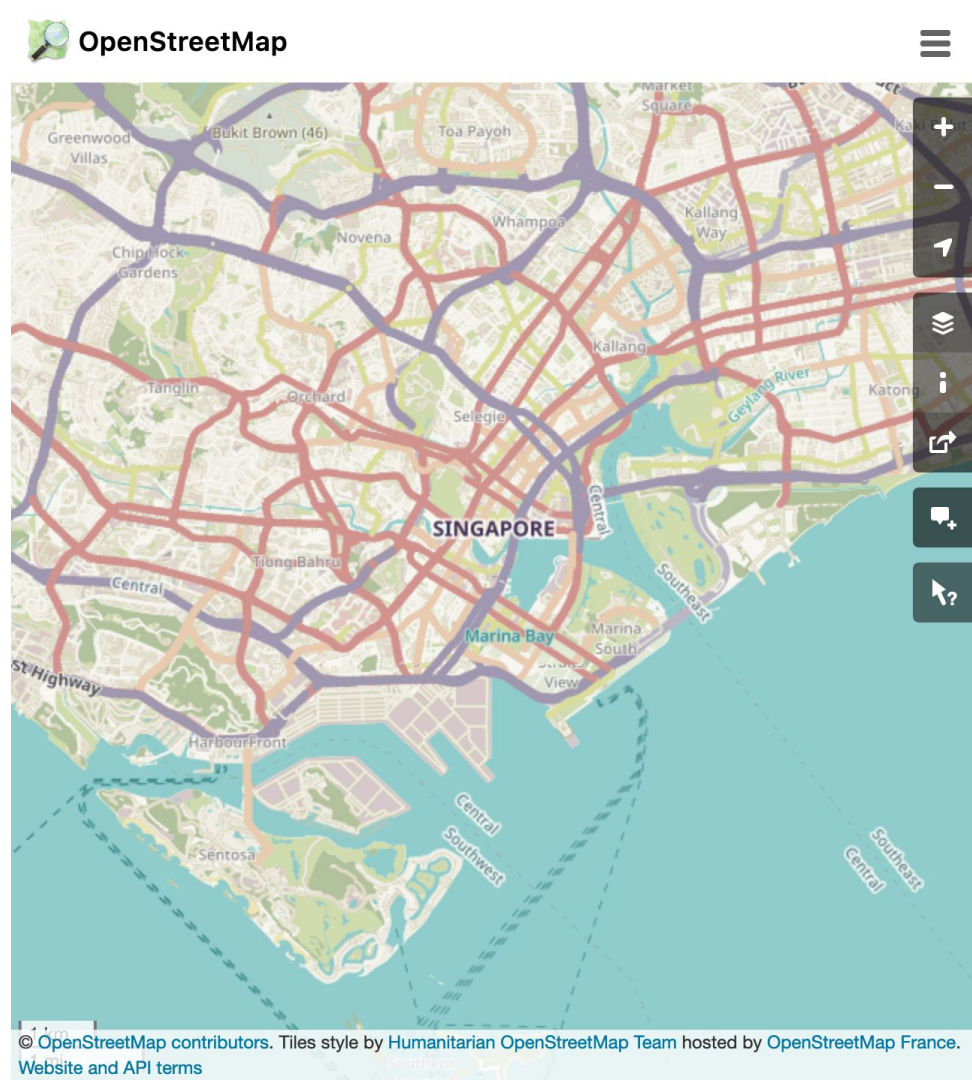
*(But only if you are already  
familiar with Wikidata!)*



# OSM?



**OpenStreetMap** was started in the United Kingdom in 2004 and is overseen by the **OpenStreetMap Foundation** (OSMF), registered in England and Wales.





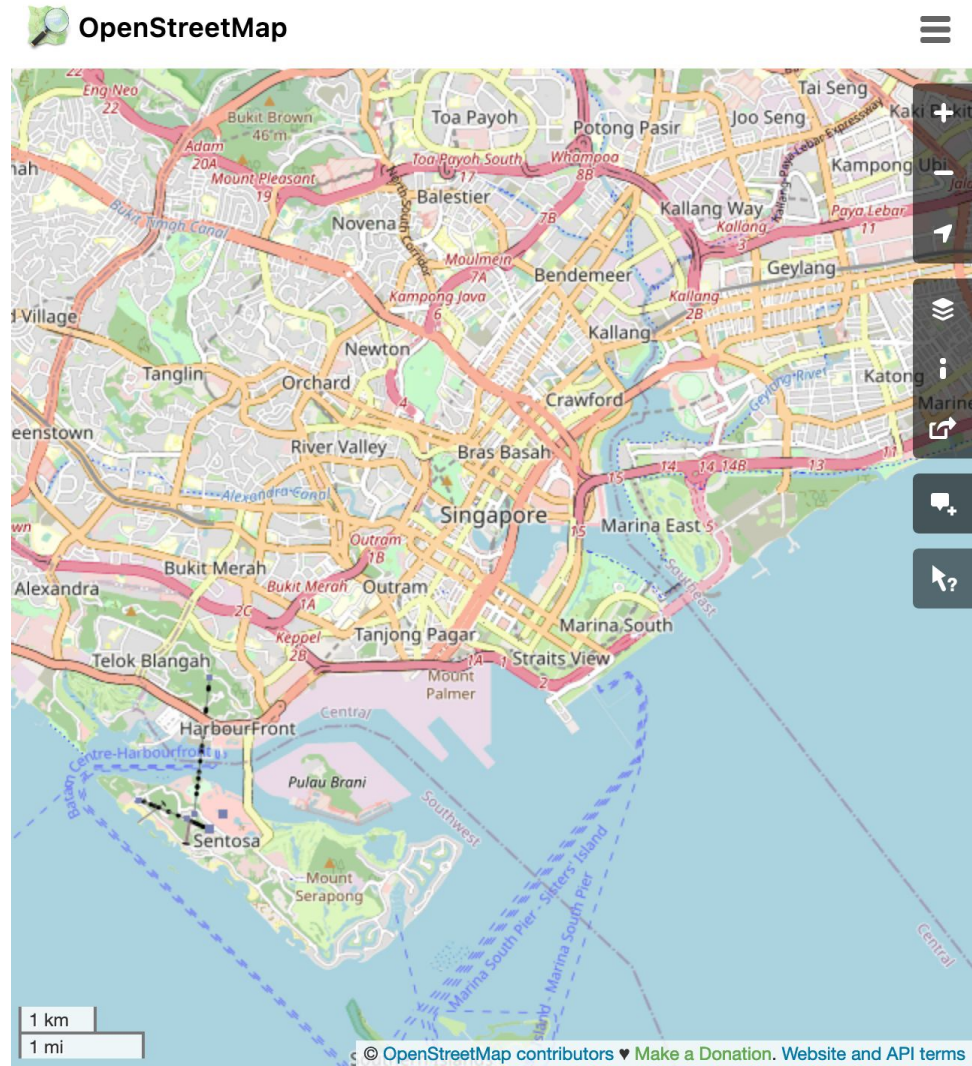


# OpenStreetMap's data model

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# Data model

OSM and Wikidata have quite a lot in common, both being crowdsourced, open data projects.





# Data model

While Wikidata has items, statements, properties, values, qualifiers, references, labels, descriptions, etc., ...

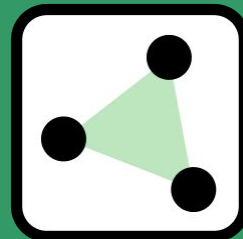
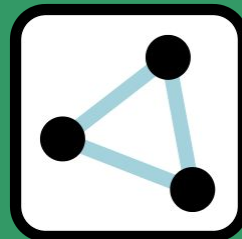
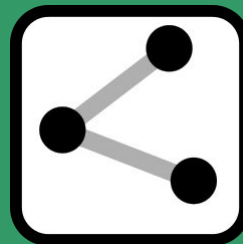
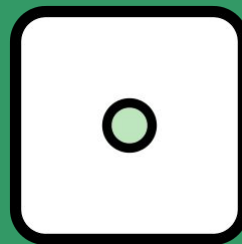
The image shows a Wikidata item page for Marie Curie (Q7186) with several annotations explaining its data model components:

- label**: Points to the name "Marie Curie" and its identifier "Q7186".
- description**: Points to the text "Polish-French physicist and chemist" and its aliases "Maria Skłodowska-Curie | Maria Salomea Skłodowska | Madame Curie".
- property**: Points to the "award received" property.
- value**: Points to the value "Nobel Price in Physics".
- qualifiers**: Points to the table of qualifiers for the Nobel Prize, including "point in time" (1903), "together with" (Henry Becquerel, Pierre Curie), and "prize money" (35,339 Swedish krona).
- rank**: Points to the "rank" column in the statements table.
- statement group**: Points to the entire "Statements" section.
- opened references**: Points to the expanded reference for the Nobel Prize, showing details like "reference URL", "retrieved", "publisher", "language of work or name", and "title".
- collapsed reference**: Points to the collapsed reference for the Willard Gibbs Award, which only shows "1 reference".

rank	statement group	property	value
		award received	Nobel Price in Physics
		point in time	1903
		together with	Henry Becquerel Pierre Curie
		prize money	35,339 Swedish krona
		references	2 references
		reference URL	http://www.nobelprize.org/nobel_prizes/physics/laureates/1903/index.html
		retrieved	3 August 2015
		publisher	Nobel Foundation
		language of work or name	English
		title	The Nobel Prize in Physics 1903 (English)
		reference URL	https://www.nobelprize.org/nobel_prizes/about/amounts/
		Willard Gibbs Award	
		point in time	1921
		references	1 reference

# Data model

... OSM has nodes, ways, relations (that have members and roles), tags, keys, values, etc.





# Data model

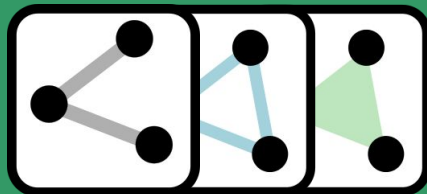
Nodes, ways, and relations model the geometry and topology of objects.

Tags (key-value strings) describe the actual “things” those objects represent.

nodes



ways



relations



---

tags



# Data model

OSM tags are quite similar to Wikidata statements:

**OSM key**  $\approx$

**Wikidata property**

*OSM's tags are not strictly controlled—users can invent and add any tag they like! There is a tagging proposal process for common tags, though.*



**Suntec Singapore item (Q20983933):**

**official website (P856)** = <https://www.suntecsingapore.com/>

**date of official opening (P1619)** = 1995-08-30

**coordinate location (P625)** = 1°17'37.7"N, 103°51'26.1"E



**Suntec Singapore way (393090489):**

**addr:housenumber** = 1

**addr:street** = Raffles Boulevard

**addr:postcode** = 039593

**website** = <https://www.suntecsingapore.com/>



# Data model

Data modeling discussions on the [Wikidata:Project chat](#) page are actually quite similar to discussions on OSM's [tagging](#) mailing list.

*(Folksonomic ontology is hard!)*

## ^ Building that has changed uses



Are there any good models of how to deal with a building that has changed uses over time? This came up with [Mercy Friary \(Q47766776\)/Museum of Fine Arts of Seville \(Q2163496\)](#). I'm not sure I found a satisfactory solution -- it seems here like what I've done associates the physical building with [Mercy Friary \(Q47766776\)](#) and there is no item for the religious community that happened to reside in the building (whereas the museum that happens to reside in the building gets its own item). Is there a better way to do this? [Calliopejen1 \(talk\)](#) 05:33, 10 October 201

- Looking for a case I hoped would be handled correctly, I discovered that [Post Office \(Q5532118\)](#) and [Hotel Monaco \(Q5911750\)](#), despite being the same building, have no linkage at all beyond both being given as



## [Tagging] Guard booth building type

**Mateusz Konieczny** [matkoniecz at tutanota.com](mailto:matkoniecz@tutanota.com)  
Mon Oct 7 07:02:03 UTC 2019

- Previous message (by thread): [\[Tagging\] Feature Proposal - Voting - traffic calming=dynamic bump](#)
- Next message (by thread): [\[Tagging\] Guard booth building type](#)
- Messages sorted by: [\[date\]](#) [\[thread\]](#) [\[subject\]](#) [\[author\]](#)

What would be the best tagging for guard booth minibuildings?

I think that `building=guard_booth` would be the best one for objects constructed as guard booth.

Such objects are housing guard, usually at entrance to parking lot, industrial complex, closed private residential complex, military base etc.

Is there a better name than "guard booth"? "guard shed" was a previous version that I had







# Linking OSM with Wikidata

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# WD ⇒ OSM

Wikidata items on places can link to OSM objects using the following properties:

- [OSM relation ID](#) (P402)
- [OSM way ID](#) (P10689)
- [OSM node ID](#) (P11693)

WIKIDATA

(Q3810086)

English

## Downtown Core


urban planning area of Singapore

### Identifiers

National Library Board Singapore ID pLf8dprZvNM 0 references	Freebase ID <a href="#">/m/06c_sl</a> 1 reference stated in <a href="#">Freebase Data Commons</a> publication date 2013
archINFORM location ID <a href="#">43951</a> 1 reference reference URL <a href="https://www.archinform.net/service/wd_aiort.php">https://www.archinform.net/service/wd_aiort.php</a> stated in <a href="#">archINFORM</a> retrieved 5 August 2018	<b>OpenStreetMap relation ID</b> <a href="#">12943475</a> 0 references

### Sitelinks

Wikimedia (11 sitelinks)



# WD ⇒ OSM

*Ontology:* Wikidata items/properties for geographical features can link to “equivalent” OSM classes using the **OSM tag or key** (P1282) property.

0 references

image



Leuchtturm in Westerheversand  
crop.jpg

3,606 × 2,894; 8.36 MB

0 references

studied by



pharology

0 references

pronunciation audio



LL-Q188 (deu)-Sebastian  
Wallroth-Leuchtturm.wav

1.4 s; 131 KB

language of work or name [German](#)

0 references

0 references



Brockhaus and Efron

Encyclopedic Dictionary

statement is subject of [Q24467653](#)

0 references



Small Brockhaus and Efron

Encyclopedic Dictionary

statement is subject of [Q24772093](#)

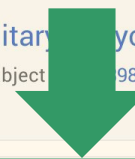
0 references



Sytin Military Encyclopedia

statement is subject of [Q198057](#)

0 references



OSM tag or key



Tag:man\_made=lighthouse

0 references

equivalent class



<http://dbpedia.org/ontology/Lighthouse>

described at URL <http://mappings.dbpedia.org/index.php/OntologyClass:Lighthouse>

retrieved 16 June 2015

1 reference

imported from Wikimedia project [DBpedia](#)

has part



# WD ⇒ OSM

## *Other properties:*

There are a few other OSM-related properties in Wikidata:

- [OSM numeric user ID](#) (P8754)
- [OSM Name Suggestion Index ID](#) (P8253)

(P8754)

English

## OpenStreetMap numeric user ID

numeric identifier for a user on OpenStreetMap

OSM numeric user ID | OSM ID | osm user ID | Openstreetmap user

## Data type

External identifier

## Statements

instance of

[Wikidata property to identify online accounts](#)

0 references

[numeric ID](#)

0 references

country

[United Kingdom](#)

0 references

applicable 'stated in' value

[OpenStreetMap](#)

0 references

Wikidata property example

[Allan Phillip Mustard](#)

OpenStreetMap numeric user ID 1960718

website username or ID apm-wa

URL <https://www.openstreetmap.org/user/apm-wa>

0 references

# OSM ⇒ WM

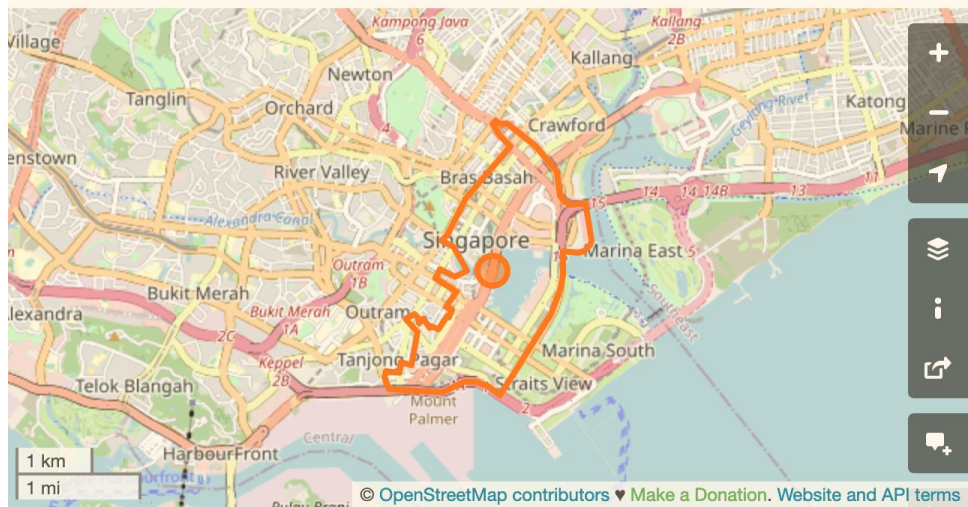
OSM objects can link to corresponding Wikipedia articles and Wikidata items using the [wikipedia=\\*](#) and [wikidata=\\*](#) tags respectively.

OpenStreetMap

Relation: Downtown Core (12943475)

Tags


name	Downtown Core
name:en	Downtown Core
name:ms	Jusat Bandar
place	suburb
type	boundary
wikidata	Q3810086
wikipedia	en:Downtown Core



# OSM ⇒ WM

There are also several Wikidata secondary tags such as:

- **brand:wikidata=\***
- **architect:wikidata=\***
- **artist:wikidata=\***
- **name:etymology:wikidata=\***

 **OpenStreetMap**

Location: [52.5313942](#), [13.3429669](#)

Tags

<a href="#">artist:wikidata</a>	<a href="#">Q28406050</a>
<a href="#">artist_name</a>	Herakut
<a href="#">artwork_type</a>	mural
<a href="#">inscription</a>	As Long As You Are Standing, Give A Hand To Those Who Have Fallen.
<a href="#">tourism</a>	<a href="#">artwork</a>
<a href="#">wheelchair</a>	yes



 **OpenStreetMap**

**Node: Europcar (1719500135)**

Modified via [wheelmap.org](#)

Edited [about 2 months ago](#) by [wheelmap\\_visitor](#)  
Version #6 · Changeset [#73869547](#)

Location: [52.5045062](#), [13.3424821](#)

Tags

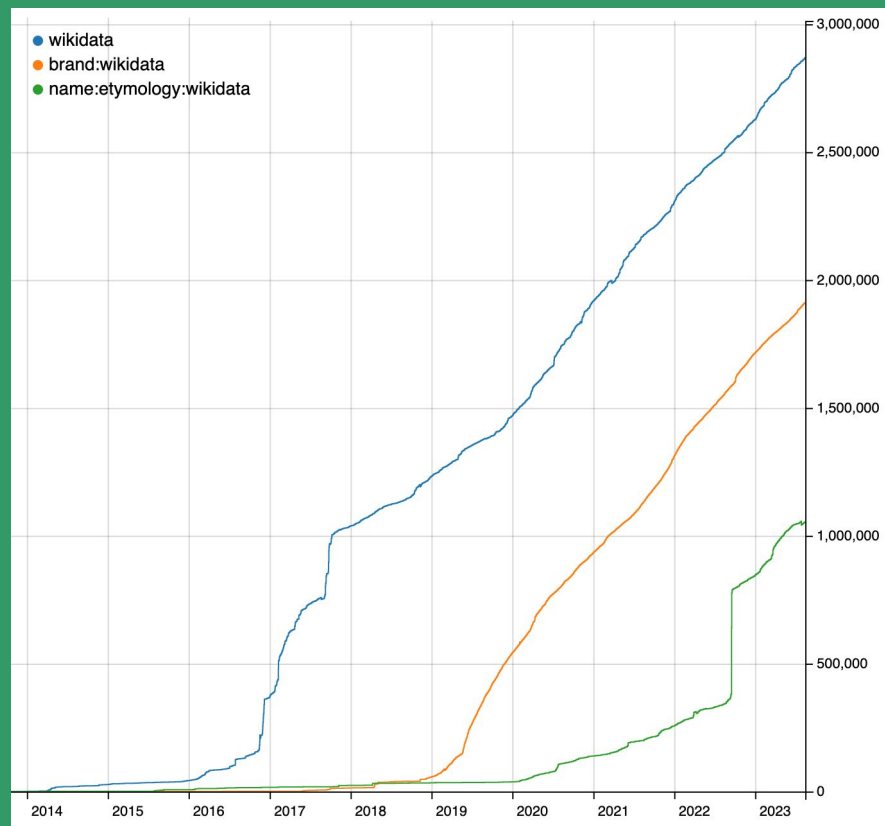
<a href="#">amenity</a>	<a href="#">car rental</a>
<a href="#">brand</a>	Europcar
<a href="#">brand:wikidata</a>	<a href="#">Q1376256</a>
<a href="#">brand:wikipedia</a>	en:Europcar





# OSM ⇒ WM

There are now almost **3M** objects in OSM with **wikidata** tags, almost **2M** with **brand:wikidata** tags and over **1M** with **name:etymology:wikidata** tags.





# OSM maps and data in Wikimedia

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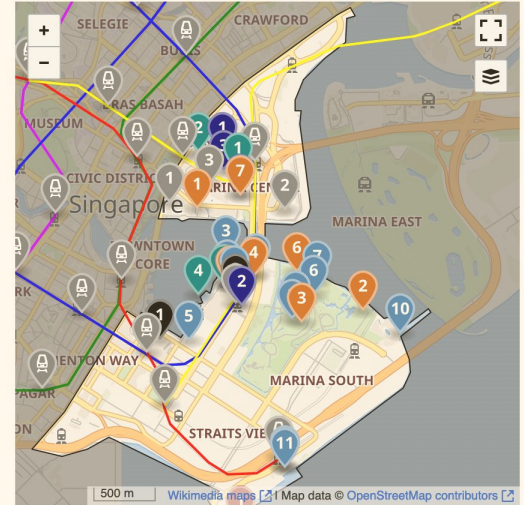
# Interactive Maps

OSM data powers WMF's [Kartotherian](#) map tile service, which is used by the [Kartographer](#) MediaWiki extension.

## ^ Understand

The label "Marina Bay" is a little fuzzy. The bay is the body of water created by reclaiming land around the mouth of the Singapore River and blocked off from the sea by the **Marina Barrage**, but Singaporeans used to associate the name "Marina" with the Marina Square shopping mall and the many hotel developments around it on the north shore of the river. The half to the south of the river, or **Marina South**, was mostly unused reclaimed land until the government targeted it as Singapore's new downtown hub, turning it into the core of Singapore's urban transformation efforts. Now its centrepiece, the **Marina Bay Sands** hotel and casino, dominates the city skyline while sharing the spotlight with the super trees of **Gardens by the Bay**.

## ∨ Get in



Map of Singapore/Marina Bay





# Interactive Maps

Kartographer maps can also pull and overlay geometry from OSM.

WIKIMEDIA COMMONS

Search Wikimedia Commons

## Category:Downtown Core Planning Area

Subcategories

This category has the following 20 subcategories, out of 20 total.

**B**

- ▶ [Beach Road, Singapore](#) (9 C, 17 F)
- ▶ [Benjamin Sheares Bridge](#) (1 P, 30 F)
- ▶ [Bugis, Singapore](#) (8 C, 17 F)

**C**

- ▶ [Central Business District, Singapore](#) (29 C, 28 F)
- ▶ [Civic District, Singapore](#) (17 C, 3 F)
- ▶ [Coleman Street, Singapore](#) (4 C, 6 F)

**H**

- ▶ [High Street, Singapore](#) (3 C, 1 F)
- ▶ [Hill Street, Singapore](#) (4 C, 6 F)
- ▶ [Housing and Development Board flats in the Downtown Core](#) (1 C, 1 F)


**K**

- ▶ [Killiney Road, Singapore](#) (2 F)

**M**

- ▶ [Marina Bay Sands](#) (11 C, 12 F)

<b>Downtown Core</b>	
urban planning area of Singapore	
<a href="#">Upload media</a>	
<b>Wikipedia</b>	
<b>Instance of</b>	<ul style="list-style-type: none"><li>• <a href="#">downtown</a></li><li>• <a href="#">planning area of Singapore</a></li></ul>
<b>Location</b>	<a href="#">Central Region, Singapore</a>
<b>Inception</b>	1995
<b>Area</b>	2.66 ±0.01 km <sup>2</sup>

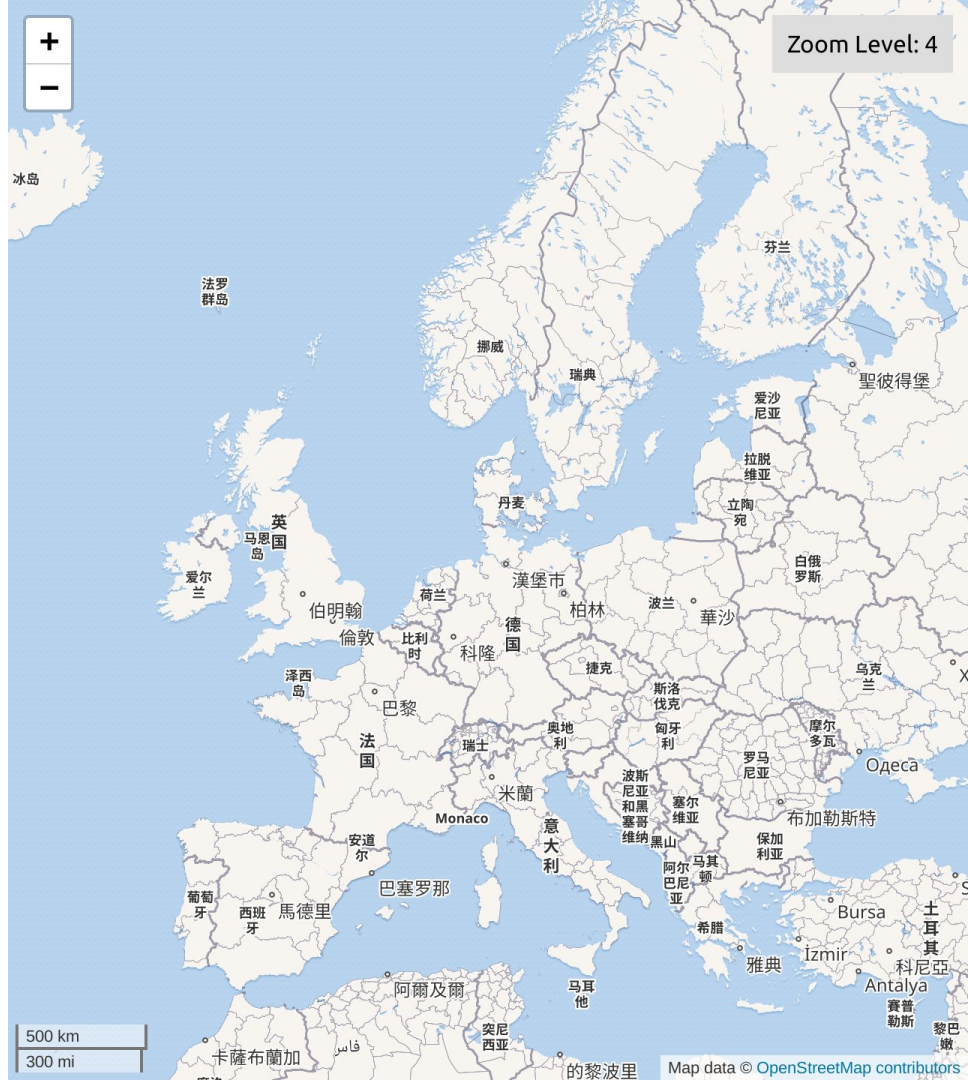


1° 17' 12.12" N, 103° 51' 14.4" E

Authority file

# Interactive Maps

In 2018, WMF [released](#) localised map tiles for Kartotherian, leveraging OSM's **name:\*=\*** tags.





# Wikidata use in OpenStreetMap

**WIKIMANIA  
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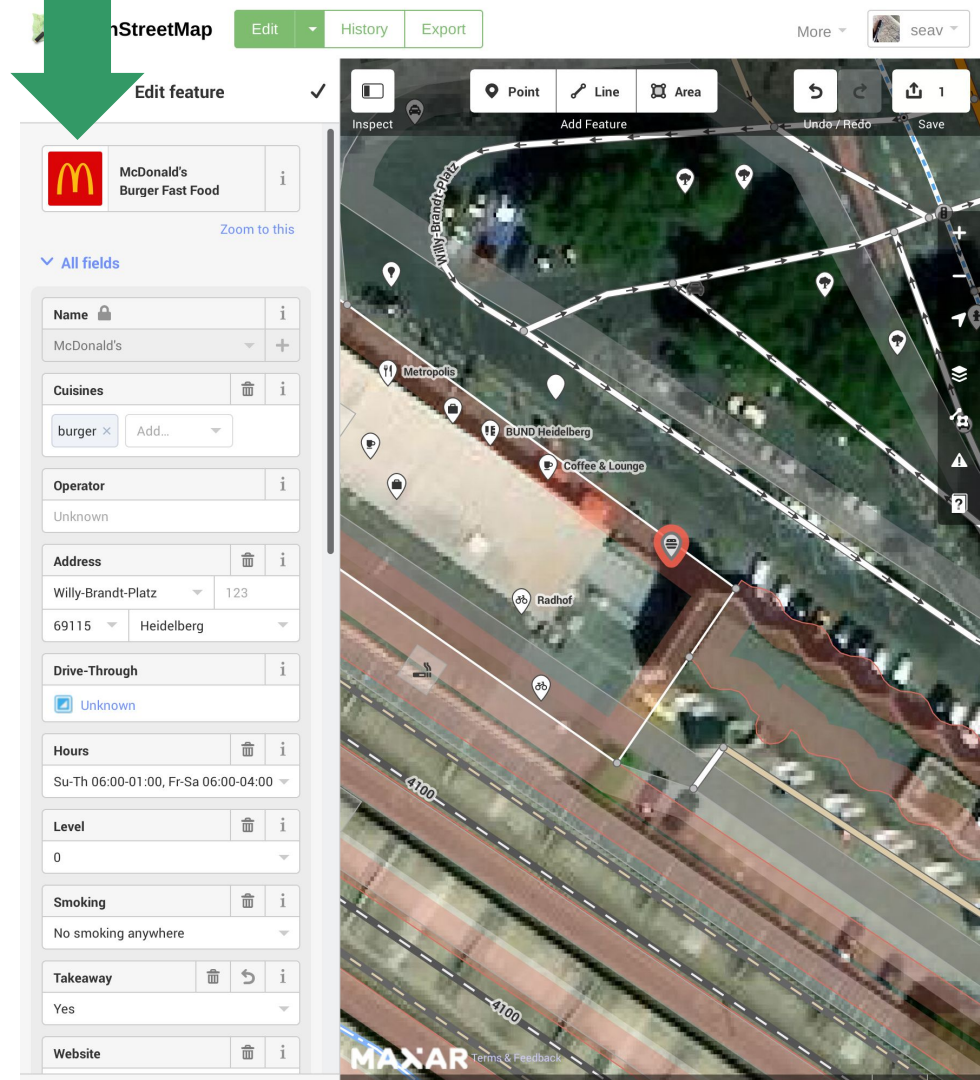


# Brands

OSM's **Name Suggestion Index**

uses Wikidata to provide brand identity and improved tagging.

<https://github.com/osmlab/name-suggestion-index>



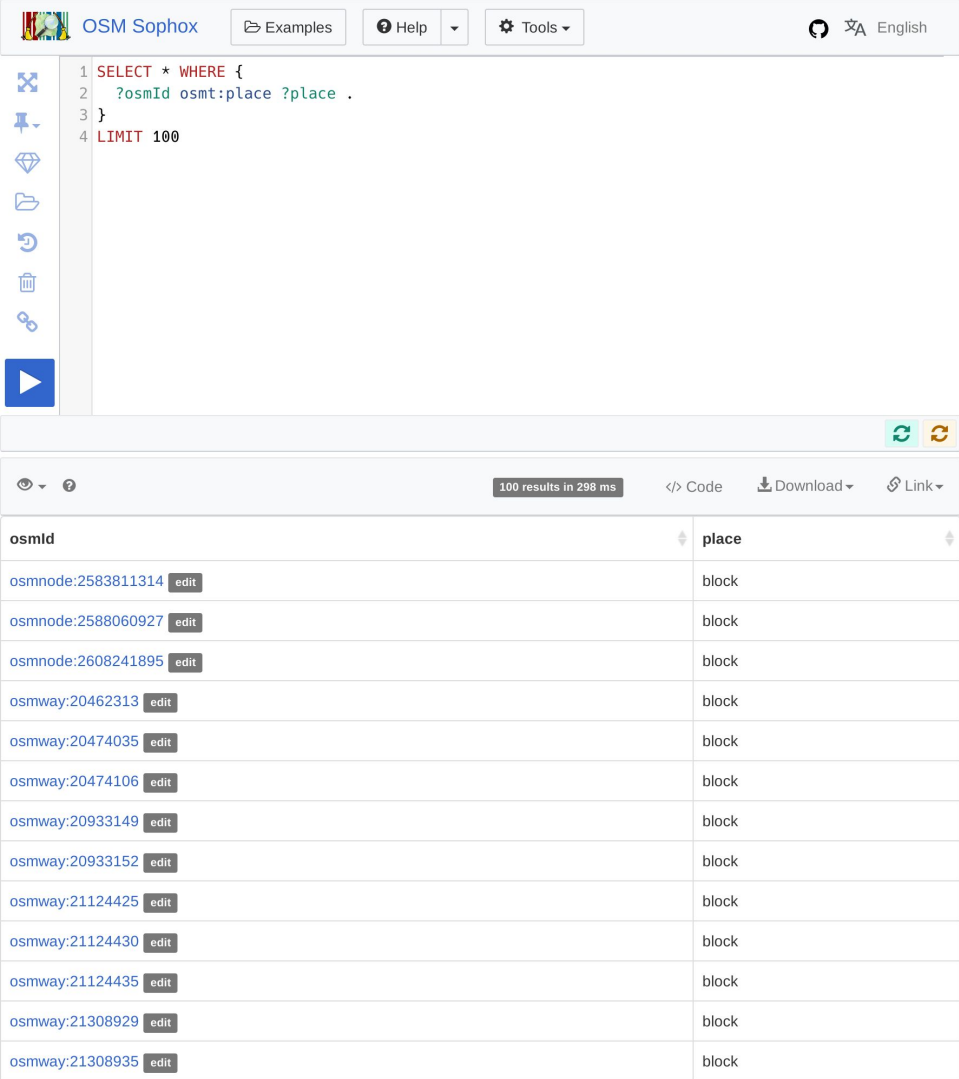


# Federation

**Sophox** is a SPARQL endpoint for OSM data. This service can use RDF federation to also query linked Wikidata items.

<https://wiki.osm.org/Sophox>

<https://sophox.org/>



The screenshot shows the OSM Sophox SPARQL query interface. The query is:

```
1 SELECT * WHERE {
2   ?osmId osmt:place ?place .
3 }
4 LIMIT 100
```

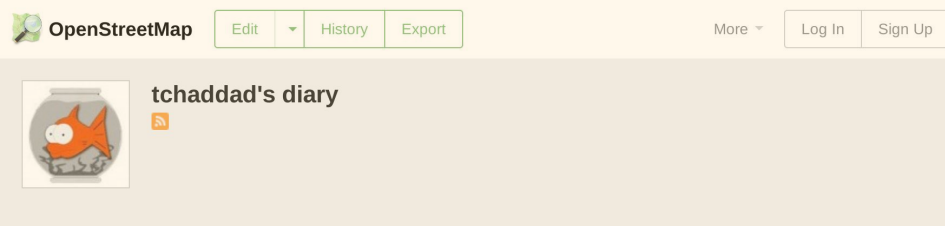
The results table shows 100 results in 298 ms. The table has two columns: **osmId** and **place**. Each row contains an OSM ID and a corresponding place name.

osmId	place
<a href="#">osmnode:2583811314</a> <small>edit</small>	block
<a href="#">osmnode:2588060927</a> <small>edit</small>	block
<a href="#">osmnode:2608241895</a> <small>edit</small>	block
<a href="#">osmway:20462313</a> <small>edit</small>	block
<a href="#">osmway:20474035</a> <small>edit</small>	block
<a href="#">osmway:20474106</a> <small>edit</small>	block
<a href="#">osmway:20933149</a> <small>edit</small>	block
<a href="#">osmway:20933152</a> <small>edit</small>	block
<a href="#">osmway:21124425</a> <small>edit</small>	block
<a href="#">osmway:21124430</a> <small>edit</small>	block
<a href="#">osmway:21124435</a> <small>edit</small>	block
<a href="#">osmway:21308929</a> <small>edit</small>	block
<a href="#">osmway:21308935</a> <small>edit</small>	block

# Geocoding

In 2019, OSM had a GSoC project to use **wikidata=\*** tags in **Nominatim**, OSM's default geocoder, for better search results.

*Note: Nominatim already uses **wikipedia=\*** tags.*



The screenshot shows the top of a diary entry on the OpenStreetMap website. At the top left is the OpenStreetMap logo. To its right are three buttons: 'Edit', 'History', and 'Export'. Further right is a 'More' dropdown menu, and at the far right are 'Log In' and 'Sign Up' buttons. Below this navigation bar is the header for the diary entry, which includes a profile picture of a fish in a bowl and the title 'tchaddad's diary' with a small orange icon.

Recent diary entries

## End of Project Summary

Posted by [tchaddad](#) on 2 September 2019 in [English \(English\)](#)

Summer has come to an end, and so this post is to wrap up the progress made over the course of the “[Add Wikidata to Nominatim](#)” project. Overall, the main contributions are documented in the 4 preceding diary posts, and in:

- updated steps for extracting Wikipedia data and calculating importance scores
- a new script for extracting Wikidata items and place types

These new processes have made big improvements in several OSM-to-Wikipedia comparison metrics as compared to equivalent numbers from 2013 (when the previous Wikipedia snapshot was taken).

### Improved Numbers

For context, the number of Wikipedia articles in the top 40 languages in 2013 was 80,007,141, and the number of Wikipedia articles for the same 40 languages in 2019 was 142,620,084 - an increase of ~78%.

Within these article records, in 2013 it was possible under the old processing steps to attach latitude and longitude numbers to 692,541 articles, while in 2019 it was possible to enrich 7,755,392 records with location information - an increase of ~1,020%. This particular statistic largely reflects an improvement in the source Wikipedia / Wikidata projects.

More exciting, with the old method of linking Wikipedia articles to `osm_ids`, it was possible to link 313,606 Wikipedia article importance scores to `osm_ids`, but with the new method that uses both Wikidata item ids, and Wikipedia pages together, the number of Wikipedia article importance scores that can be linked has risen to 4,730,972 - an increase of ~1,409%. This increase is due to both the large number of Wikipedia and Wikidata tags added by OSM contributors since 2013, as well as the inclusion of Wikidata item ids in the linking process for the first time via this project.

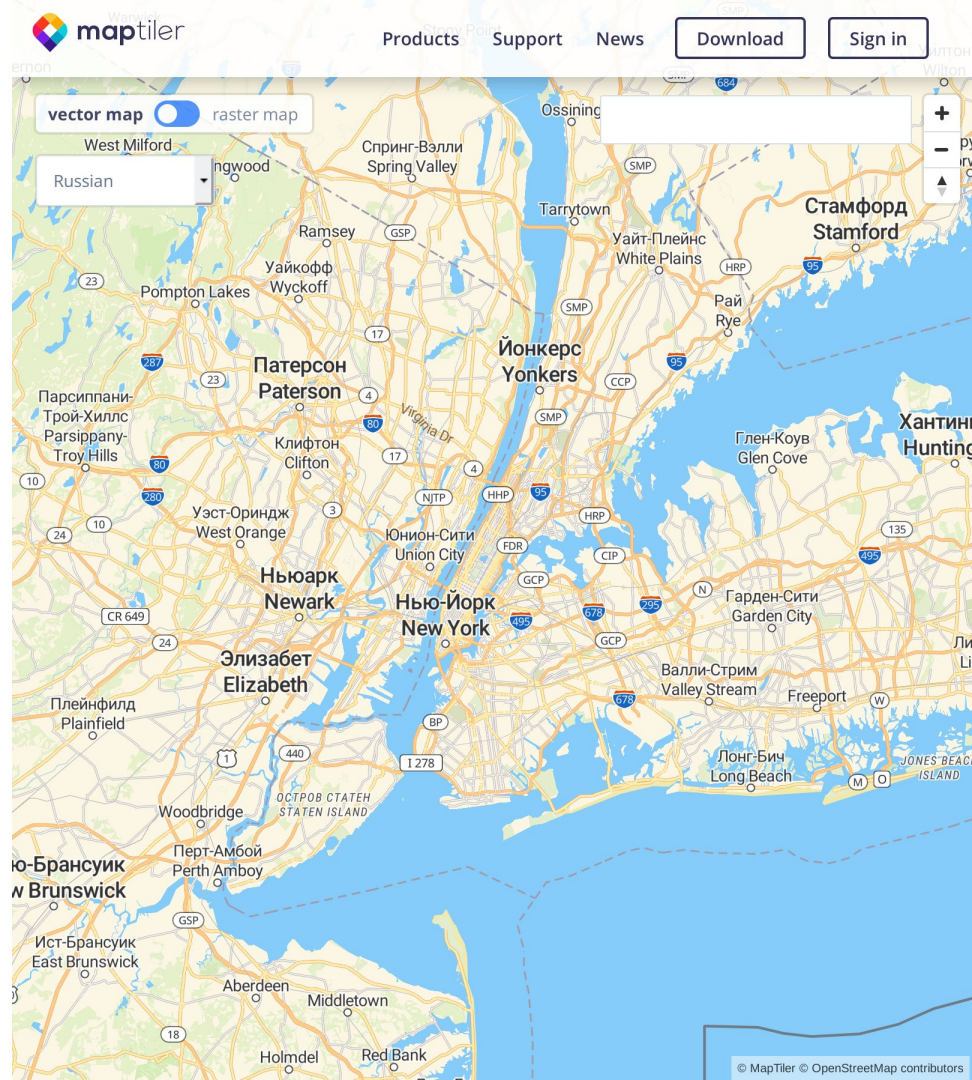
### Future Work

Although the project technically concludes today, there are obviously always areas of future work where more gains can be made. These include:

# Localisation

Mapbox, MapTiler, and other companies that leverage OSM, use Wikidata to power their localised map products.

*In case of missing **name:\*** tags in OSM, they pull labels from Wikidata.*



# Structured tag info

The OSM Wiki has the **Wikibase** extension installed. This is *intended* to provide better machine-readable data on OSM's tags.



OpenStreetMap Wiki

## highway=motorway (Q4980)

High capacity highways designed to safely carry fast motor traffic.

Contents ▾

### Statements

instance of <a href="#">tag</a> 0 references	use on relations <a href="#">is prohibited</a> 0 references
permanent tag ID <a href="#">highway=motorway</a> 0 references	group <a href="#">highways</a> 0 references
key for this tag <a href="#">highway</a> 0 references	Wikidata concept <a href="#">Q46622</a> 0 references
image  <a href="#">A4-passante di mestre dd.png</a> image caption Αυτοκινητόδρομος (Greek) 0 references	implies <a href="#">surface=paved</a> 0 references <a href="#">oneway=yes</a> 0 references <a href="#">motor_vehicle=yes</a> 0 references <a href="#">hgv=yes</a> 0 references <a href="#">motorcar=yes</a>
	





# OSM-Wikimedia projects & initiatives

**WIKIMANIA  
SINGAPORE**

狀態: [已建立鄉鎮條目](#) [未建立且無推薦鄉鎮條目](#)

#	省市 縣市	村里代碼	村里名稱	維基數據 ID	維基數據 標籤	新增月份	刪除月份	經緯度	開放街 圖ID	狀態
1	臺灣省 南投縣 信義鄉	10008120015	卡里 布安 村	<a href="#">Q111824545</a>	卡里布 安村	2022/06		<a href="#">Point(120.8872 23.60442)</a>	<a href="#">14436973</a>	已建立 鄉鎮條 目
2	臺灣省 彰化縣 鹿港鎮	10007020030	鹿和 里	<a href="#">Q111585996</a>	鹿和里	2022/03		<a href="#">Point(120.4474 24.0663)</a>	<a href="#">14211025</a>	已建立 鄉鎮條 目
3	臺灣省 彰化縣 鹿港鎮	10007020031	鹿東 里	<a href="#">Q111585997</a>	鹿東里	2022/03		<a href="#">Point(120.44487 24.0551)</a>	<a href="#">14211024</a>	已建立 鄉鎮條 目
4	臺灣省 彰化縣 埤頭鄉	10007220018	永豐 村	<a href="#">Q97022928</a>	永豐村	2021/12		<a href="#">Point(120.44938449 23.897372673)</a>	<a href="#">9684890</a>	已建立 鄉鎮條 目
5	臺南市 關廟區	67000290020	龜洞 里	<a href="#">Q96977129</a>	龜洞里	2021/12				已建立 鄉鎮條 目
6	桃園市 桃園區	68000010080	經園 里	<a href="#">Q110270177</a>	經園里	2021/12		<a href="#">Point(121.3061 25.01368)</a>	<a href="#">13903421</a>	已建立 鄉鎮條 目
7	桃園市 八德區	68000080051	興中 里	<a href="#">Q110270173</a>	興中里	2021/12		<a href="#">Point(121.2831 24.92482)</a>	<a href="#">14017883</a>	已建立 鄉鎮條 目
8	桃園市 中壢區	68000020087	興華 里	<a href="#">Q110270175</a>	興華里	2021/12		<a href="#">Point(121.24439 24.97528)</a>	<a href="#">14014974</a>	已建立 鄉鎮條 目
9	桃園市 桃園區	68000010081	檜樂 里	<a href="#">Q110270178</a>	檜樂里	2021/12		<a href="#">Point(121.3193 25.01838)</a>	<a href="#">13903361</a>	已建立 鄉鎮條 目
10	桃園市 八德區	68000080049	福元 里	<a href="#">Q110270171</a>	福元里	2021/12		<a href="#">Point(121.2884 24.93459)</a>	<a href="#">14017882</a>	已建立 鄉鎮條 目
11	桃園市 大園區	68000060020	青峰 里	<a href="#">Q110270167</a>	青峰里	2021/12		<a href="#">Point(121.2172 25.0256)</a>	<a href="#">13985401</a>	已建立 鄉鎮條 目

# Taiwan

The Wikidata and OSM Taiwan communities have organised projects to map and link data on villages and rivers.

*wikidata.planetoid.info*

# India

Wikimedians of Kerala UG, together with OSM Kerala, collaborate with each other to map admin areas, rivers, train stations, etc.

**OpenStreetMap** Edit History Export More Log In Sign Up

Search Where is this? Go

**Relation: Manjeshwaram (14277759)**

Version #5

Fix broken relation

Edited 8 months ago by [gschol](#)  
Changeset #130592677

**Tags**

<b>boundary</b>	political
<b>name</b>	Manjeshwaram
<b>name:ml</b>	മഞ്ചേശ്വരം നിയമസഭാമണ്ഡലം
<b>political_division</b>	2
<b>type</b>	boundary
<b>wikidata</b>	Q105989373
<b>wikipedia</b>	en:Manjeshwaram (State Assembly constituency)

**Members**

▼ 84 members

- Way [Karnataka-Kerala border \(922940066\)](#) as outer
- Way [Karnataka-Kerala border \(922940068\)](#) as outer
- Way [Karnataka-Kerala border \(286835369\)](#) as outer

5 km  
3 mi

© OpenStreetMap contributors ▼ Make a Donation. Website and API terms

# Belgium

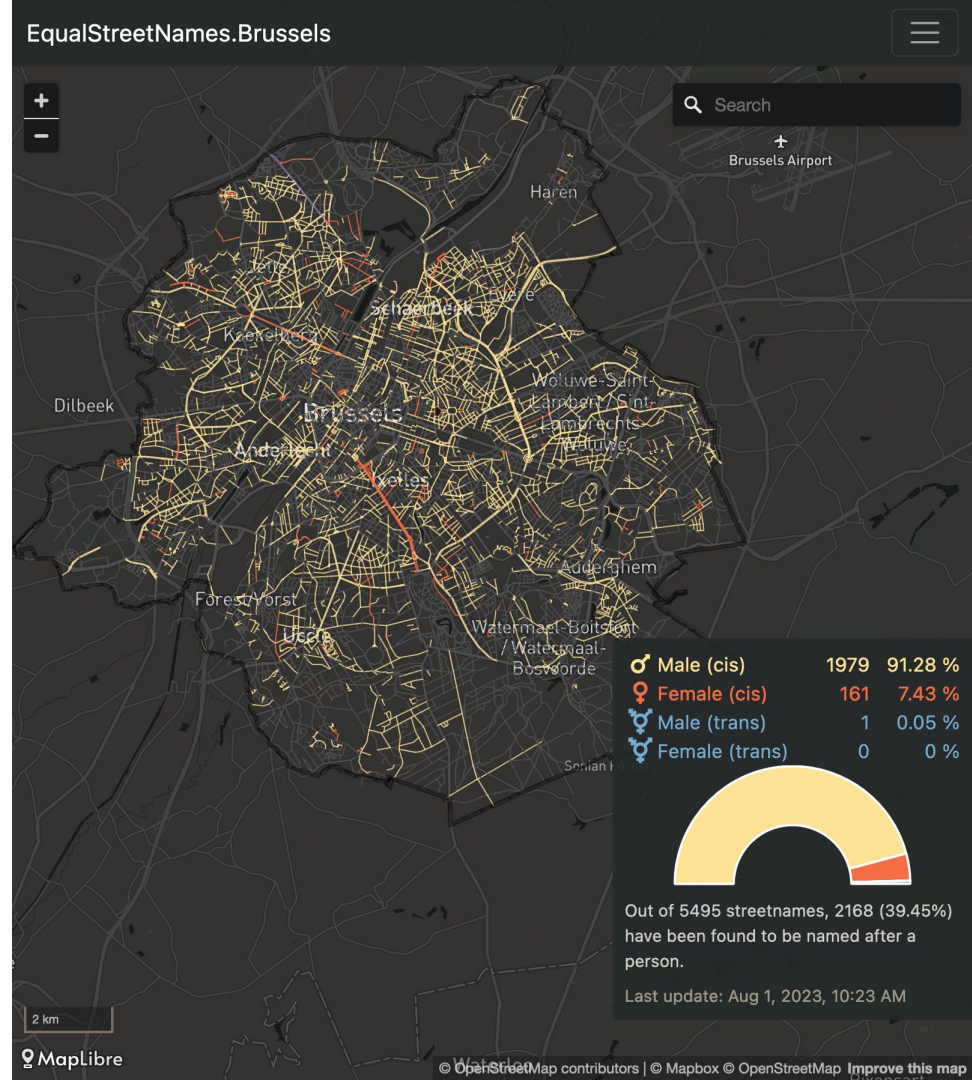
Open Knowledge

Belgium created the

**EqualStreetNames**

project to map the  
gender gap in street  
names.

*equalstreetnames.brussels*





# Etymology

Daniele Santini

created the **Open Etymology Map** to show where objects on the map get their names from.

*etymology.dsantini.it*

The screenshot shows a map of Singapore with a popup window for the Cavenagh Bridge. The popup contains the following information:

- Cavenagh Bridge** (with a red location pin icon)
- A small image of the bridge with the caption: "Wikimedia Commons - Copyrighted free use"
- William Orfeur Cavenagh**  
British Indian Army general
- Small icons for globe, image, and currency symbols.
- Text: "General Sir Orfeur Cavenagh was the last India-appointed Governor of the Straits Settlements, who governed the Settlements from 1859 to 1867."
- Birth and death dates: "10/7/1820 (Hythe) - 7/3/1891 (?)"
- Gender: "male"
- Occupation: "governor"
- A portrait of General Sir Orfeur Cavenagh with the caption: "Wikimedia Commons - Public domain - Unknown author"
- Source: "OpenStreetMap + Wikidata"
- A button: "Report a problem in this element"

The map background shows the Singapore River, Boat Quay, and other landmarks like the Fullerton Building and The River Merchants. A scale bar indicates 5m.

# Airports

The **Open Airport Map** depicts details of airports as mapped in OSM together with data pulled from Wikidata.

*openairportmap.org*

The screenshot displays the Open Airport Map interface for Amsterdam Schiphol Airport. At the top, there is a search bar with the text "search airport". The main map area shows the airport's layout with various runways and taxiways highlighted in yellow and orange. A data popup window is open over a specific runway, displaying the following information:

Key	Value
aeroway	runway
name	Aalsmeerbaan
ref	18L/36R
runway	displaced_threshold
surface	asphalt
width	45
OpenStreetMap	way 519286001

On the right side, a sidebar provides detailed information for Amsterdam Airport Schiphol (AMS):

- EHAM** (IATA code)
- AMS** (ICAO code)
- General**
  - Website: [www.schiphol.nl/](http://www.schiphol.nl/)
  - Opening: 1916
- Pilot**
  - Elevation: 11 ft / 3 m
- Runways**
  - 04/22 tarmac, 2014 m, 45 m
  - 06/24 tarmac, 3500 m, 45 m
  - 09/27 tarmac, 3453 m, 45 m
  - 18C/36C tarmac, 3300 m, 45 m
  - 18L/36R tarmac, 3400 m, 45 m
  - 18R/36L tarmac, 3800 m, 60 m
- Declination**: 2.3 E
- Passenger**
  - Max 2019: 71,679,729
  - Min 1990: 16,471,000
  - Last 2022: 52,472,188

Below the sidebar, there is a bar chart showing passenger volume over time, followed by an aerial photograph of the airport. At the bottom, there is a copyright notice: "EHAM, data from 08/15/2023, 08:44 AM UTC (refresh) Leaflet | © OpenStreetMap contributors".



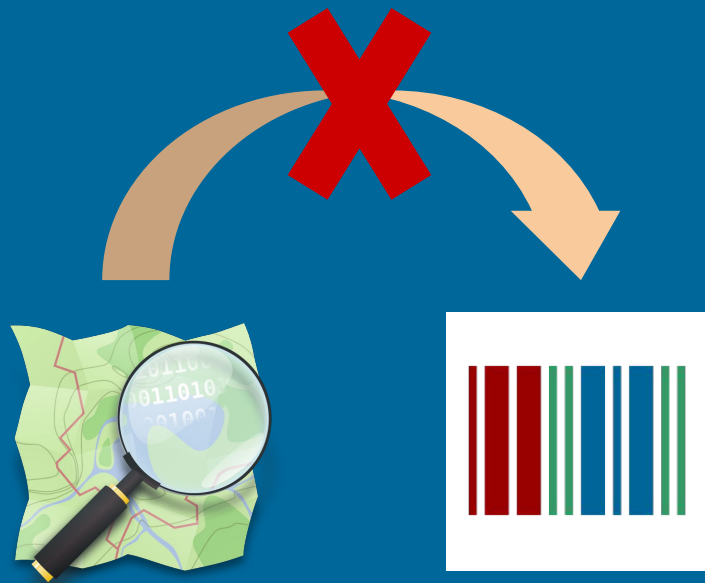
# Copyright and cultural issues

**WIKIMANIA  
SINGAPORE**

# OSM ⇒ WD

Wikidata can't import coordinates from OSM, which is under the **Open Database License** (ODbL).

*(EU/UK have database rights, conflicting with the U.S. "facts are not copyrightable" doctrine.)*





# WD ⇒ OSM

OSM **will not** import geodata from Wikidata despite CC0 because of data provenance issues.

*(“It is an established principle in OSM that we don’t import geodata from Wikipedia.”)*





# Finances

As of June 2022, the **WMF** has net assets of **\$250M** and expenses of **\$146M**.

The **OSMF**, on the other hand has an approved budget of only **€681K** for 2023.





A decorative illustration featuring a large pink hibiscus flower on the left, a smaller white flower in the center, and several green leaves with white dots scattered around. The background is a dark blue with a subtle pattern of small white dots. A horizontal black bar is positioned behind the main text.

# OSM-Wikidata linking tool

**WIKIMANIA  
SINGAPORE**

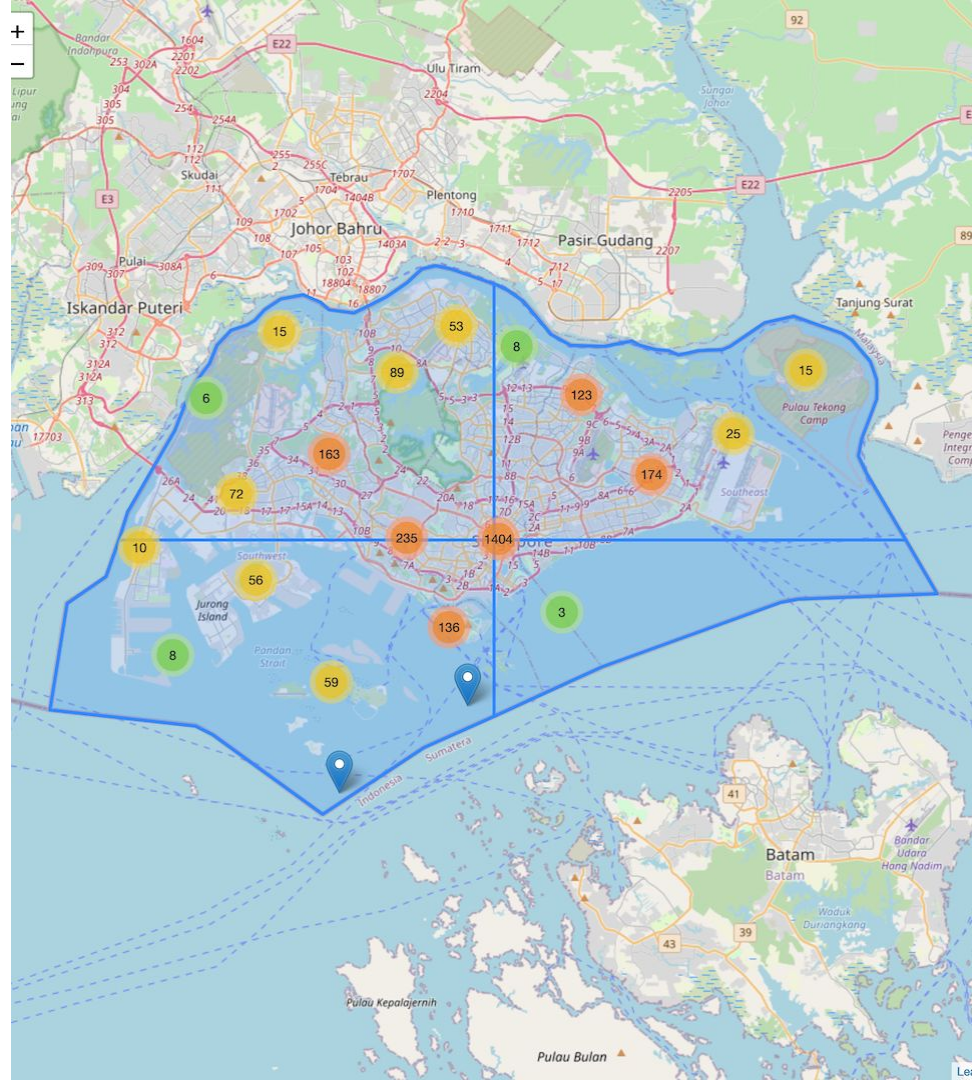


# Linking tool

A semi-automated,  
user-assisted editing  
tool developed by  
**Edward Betts** to add  
**wikidata=\*** tags to  
OSM.

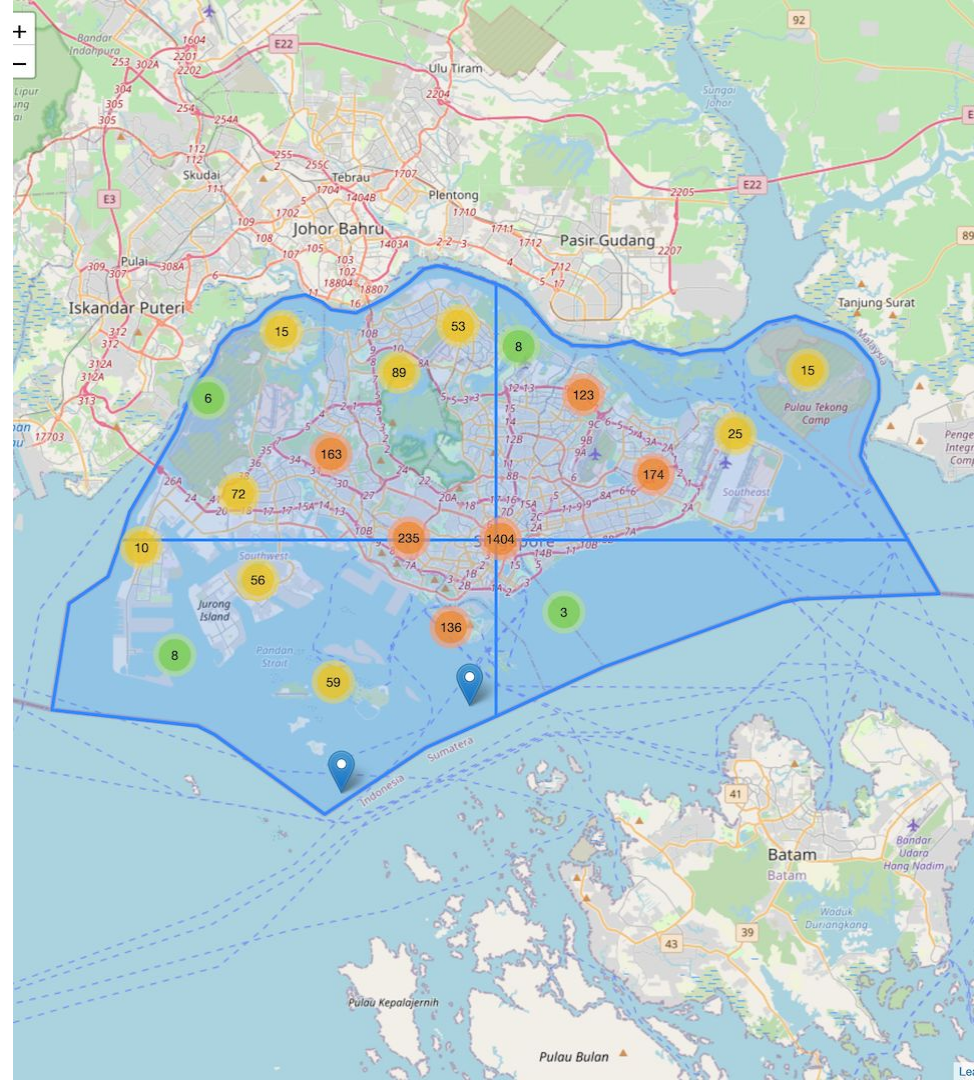
[osm.wikidata.link](https://osm.wikidata.link)

[github.com/Edwardbetts/osm-wikidata](https://github.com/Edwardbetts/osm-wikidata)



# Basic usage

After logging in with your OSM account, you select a place of interest, let the tool run, and then select OSM objects that will have their Wikidata tags added.



# OSM ↔ Wikidata matcher

Two great projects cataloguing the world, even more powerful when linked together.

---

Search for a place, pick one and leave the matcher to run for a few minutes. Then check out the list of matches.



# Singapore

None

Split into 5 chunks.

current: load entity: Chinese Garden, Singapore (Q5100456)

connected to task queue

retrieving items from wikidata

wikidata query complete

loading categories from English language

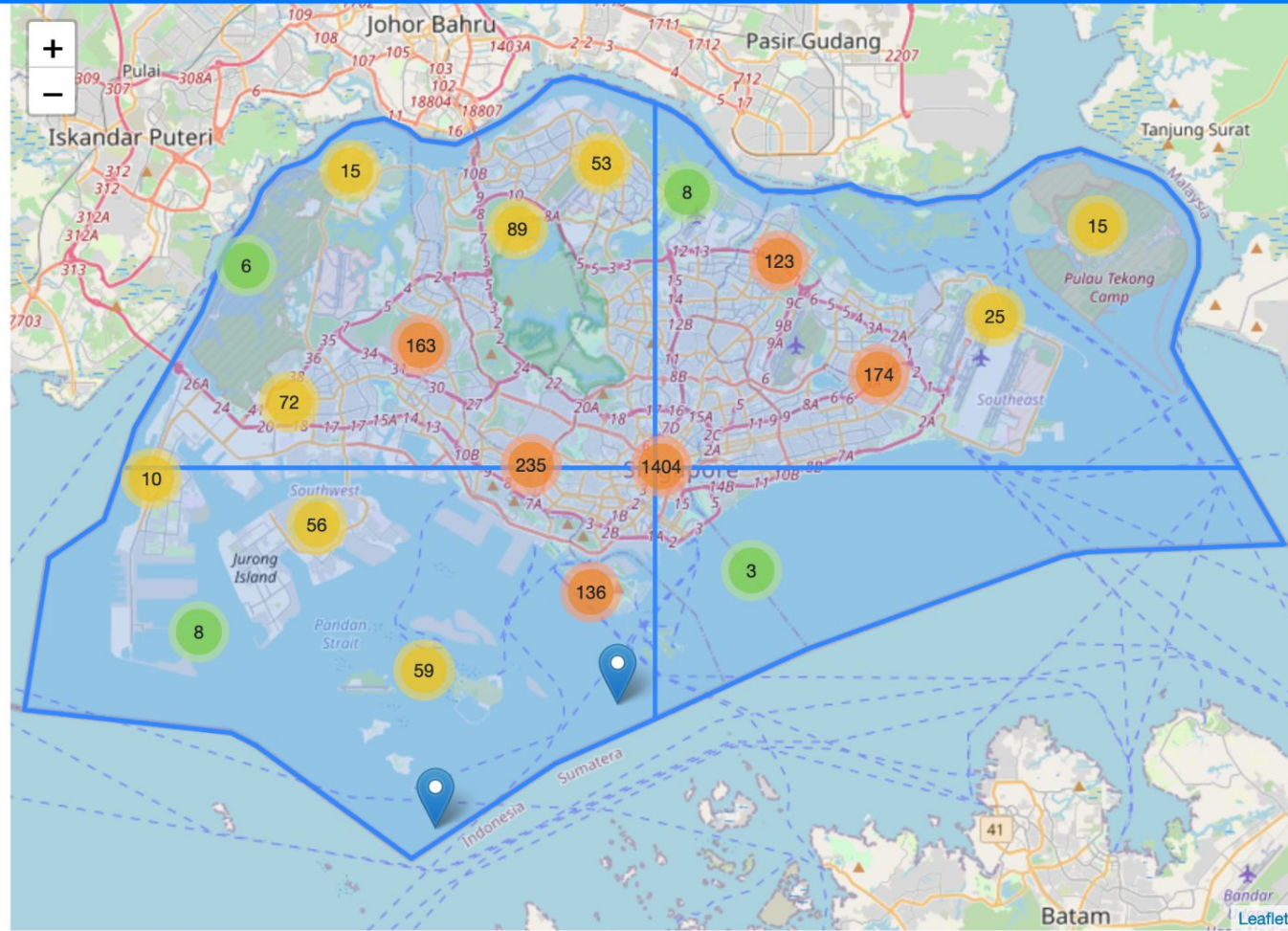
Wikipedia

categories loaded

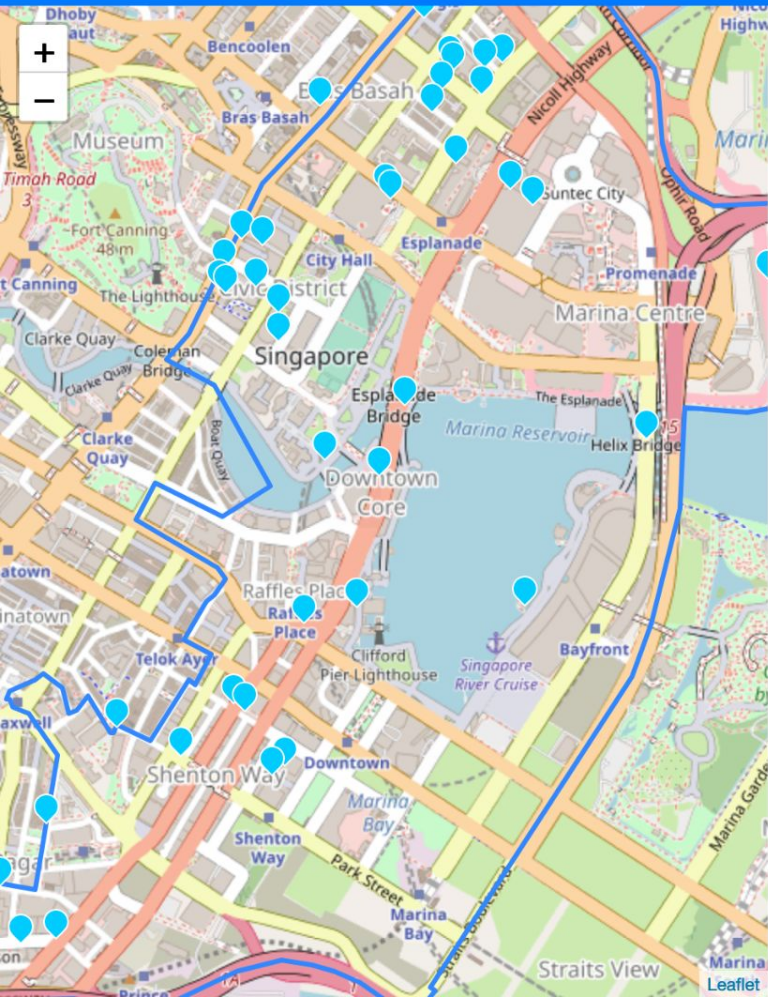
items saved to database

2,659 Wikidata items found

getting wikidata item details





**Downtown Core, Singapore, Central, Singapore**category: place — type: suburb — OSM: [relation 12943475](#)

Latest matcher run: Tue, 15 Aug 2023 10:32

Please **check each match carefully** before uploading to OpenStreetMap.If in doubt, **contact the local mapping community** before adding Wikidata tags.

Match candidates

Already tagged

No match

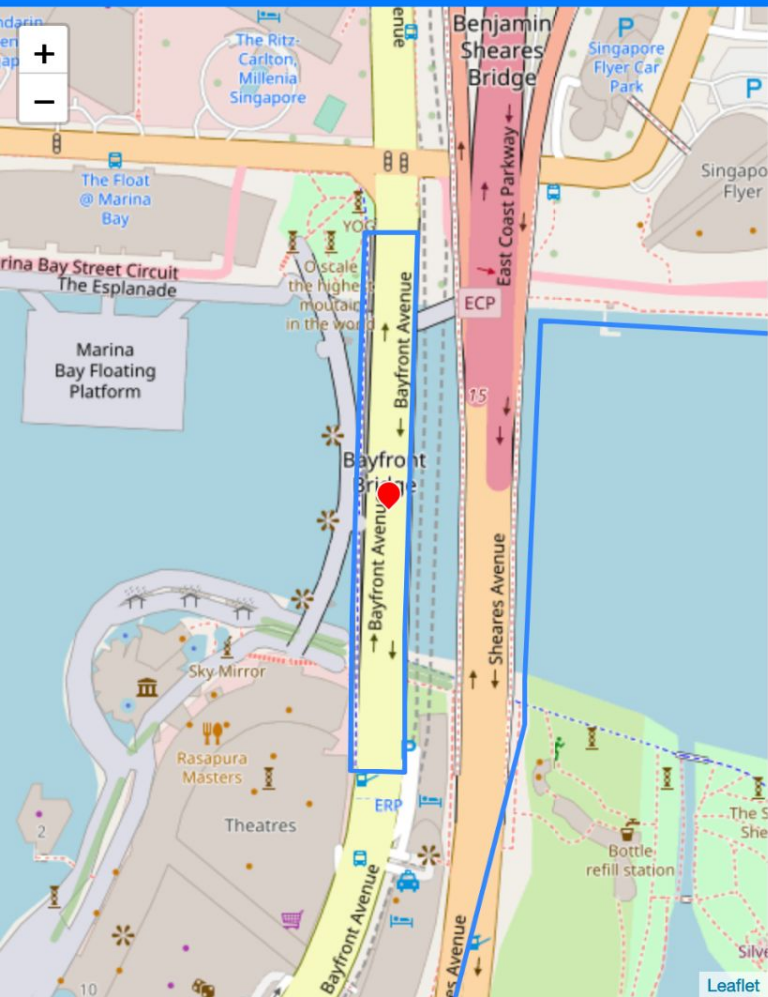
40 candidates found

Run matcher again

**Type filter**

- business enterprise (Q4830453): **27** matches — *organization involved in the trade of goods, services, or both to customers for pay*
- hotel (Q27686): **20** matches — *establishment that provides lodging paid on a short-term basis*
- commercial building (Q655686): **20** matches — *building used for commercial use*
- lodging (Q5056668): **20** matches — *type of residential accommodation*
- architectural structure (Q811979): **8** matches — *designed structure*

show: [more](#) / [all](#) (another 7 available)



## ☑ Bayfront Bridge (Q17750009)

item type: [bridge](#) [show on map](#) [Wikidata](#) [↗](#)

Summary from [Deutsch / German Wikipedia \(dewiki\)](#) [↗](#)

Die **Bayfront Bridge** ist eine Straßenbrücke in Singapur. Sie überquert den Marina Channel, der sich kurz nach der Mündung des Singapore River in die Marina Bay an der Grenze der Planungsgebiete Downtown Core und Marina East befindet. Sie verläuft zwischen den Brücken Helix Bridge und Benjamin Sheares Bridge in ihrer unmittelbarer Nachbarschaft. Die Brücke, über welche die Bayfront Avenue verläuft, wurde 2010 erbaut.



## Matches from OpenStreetMap

[Bayfront Bridge \(way\)](#) [\[OSM\]](#) [↗](#)

[exact location](#) [name match](#)

[toggle name match detail](#)

[toggle OSM tags](#)

# Downtown Core

[back to candidate list](#)

**Downtown Core, Singapore, Central, Singapore**

category: place — type: suburb — OSM: [relation 12943475](#)

Please **check each match carefully** before uploading to OpenStreetMap.

If in doubt, **contact the local mapping community** before adding Wikidata tags.

change comment:

save

1 matches to upload

Untick the checkbox next to a match if you don't want the wikidata tag added to OSM.

Wikidata	OSM	distance	matching tags
<input checked="" type="checkbox"/> <a href="#">Bayfront Bridge (Q17750009)</a>	<a href="#">Bayfront Bridge</a>	(way)	man_made=bridge





Search

Where is this?

Go



# Way: Bayfront Bridge × (1160851851)

## Version #3

[SG] add wikidata tag to bridge

Edited less than 1 minute ago by seav

Changeset #139950090

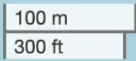
## Tags

layer	1
man_made	bridge
name	Bayfront Bridge
name:zh	海湾桥
wikidata	Q17750009

## Nodes

▼ 13 nodes

5846583503 (part of ways The Helix Bridge (687668440) and The Helix Bridge (687668440))





# Mappers are using the tool

- Uploads by 444 mappers
- 25K changesets uploaded to OpenStreetMap
- 727K Wikidata links added by the tool (26% of all Wikidata tags)

# OSM and Wikidata match criteria

- entity type AND
- coordinates AND
- name OR  
street address OR  
identifier

# Match on identifier

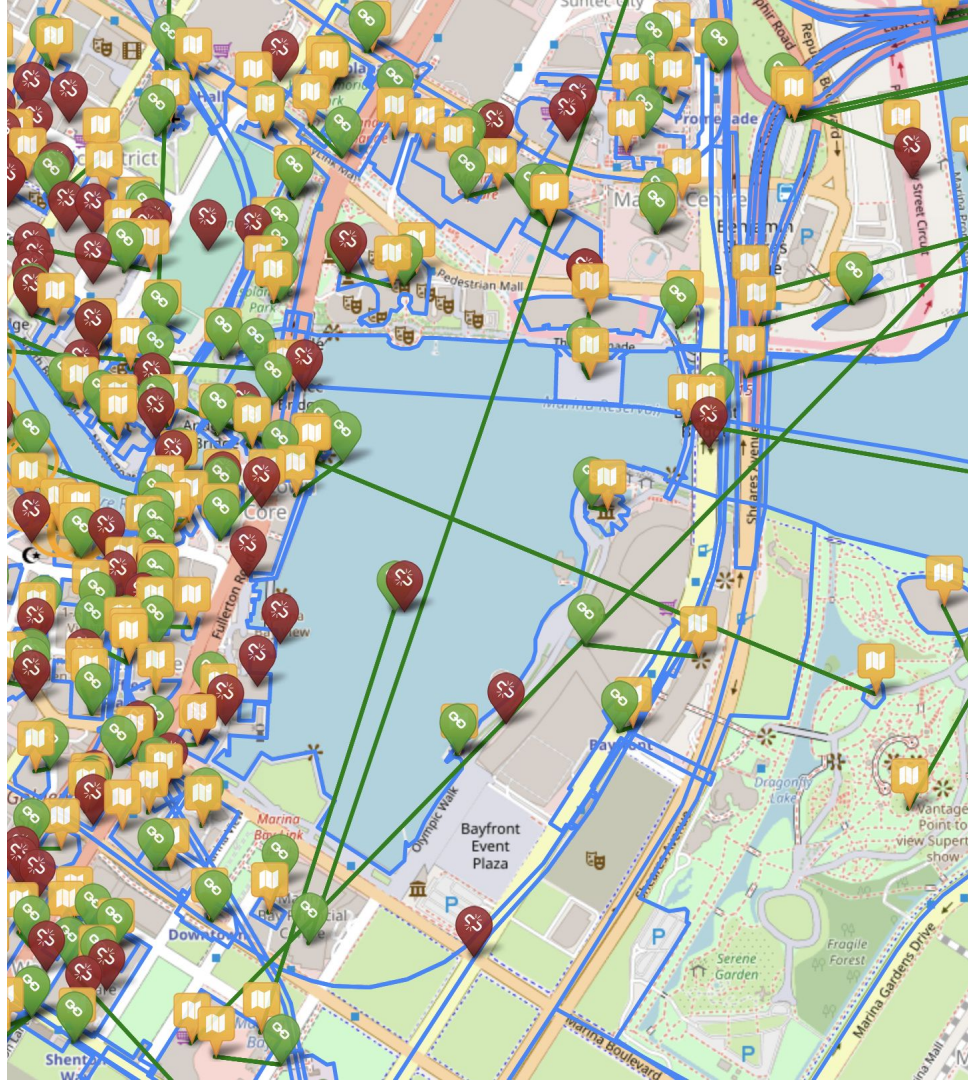
- Railway station code
- IATA airport code
- ICAO airport code
- FAA airport code
- ISO 3166-2 country code
- NRHP reference number
- UK Government Statistical Service code
- FIPS 6-4 (US counties)
- FIPS 5-2 (code for US states)
- USGS GNIS ID
- IBNR ID
- National Heritage List for England number
- EDUBase URN
- Admiralty number (lighthouse)
- Website
- World Heritage Site ID

# Version 2

Currently, Edward is developing a new version of the tool that loads data faster than version 1. (But may be a bit harder to use.)

[map.osm.wikidata.link](https://map.osm.wikidata.link)

[github.com/Edwardbetts/owl-map](https://github.com/Edwardbetts/owl-map)







# OpenStreetMap & Wikimedia

## AWESOME TOGETHER

**WIKIMANIA**  
**SINGAPORE**

Dennis Raylin Chen / Supaplex  
Eugene Alvin Villar / seav

