



OpenStreetMap and Wikidata: Awesome Together

State of the Map 2019

Eugene Alvin Villar (OSM: seav)

Edward Betts (OSM: Edward)

CHAPTER 1

What is Wikidata?

Wikidata is a CC0-licensed structured knowledge base under the Wikimedia umbrella that contains over 60 million items.



Wikidata

(Q151510) ☆


English

Heidelberg University

public research university in Heidelberg, Baden-Württemberg, Germany

Ruprecht-Karls-Universität Heidelberg | University of Heidelberg

Statements

<p>instance of</p> <p> public research university</p> <p>1 reference</p> <p>retrieved 16 March 2019</p> <p> campus</p> <p>0 references</p>	<p>students count</p> <p> 30,787</p> <p>point in time 1 December 2016</p> <p>1 reference</p> <p>reference URL https://de.wikipedia.org/wiki/Liste_der_Hochschulen_in_Deutschland</p> <p>https://www.uni-heidelberg.de/md/studium/download/studierendenstatistik-ws201617.pdf</p> <p>retrieved 28 September 2017</p> <p>5 December 2017</p>
<p>part of</p> <p> Alliance 4EU+</p> <p>0 references</p>	<p> 28,413</p> <p>point in time 1 June 2017</p> <p>1 reference</p> <p>reference URL https://www.uni-heidelberg.de/md/zentral/studium/studierendenstatistik-ss2017v4.pdf</p> <p>retrieved 5 December 2017</p>
<p>logo image</p> <p> </p> <p>Logo University of Heidelberg.svg</p> <p>1,727 × 1,700; 795 KB</p> <p>1 reference</p> <p>imported from Wikimedia project Romanian Wikipedia</p>	<p>language used</p> <p> German</p> <p>1 reference</p> <p>imported from Wikimedia project Turkish Wikipedia</p> <p> English</p> <p>0 references</p>
	<p>subsidiary</p> <p> Heidelberg Graduate School of</p>

Wikidata was intended to solve two things:

- The mess of interwiki links in the Wikipedias
- The duplication of data in Wikipedia infoboxes

Wikidata

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	 campus 0 references		 28,413 point in time 1 June 2017 1 reference reference URL https://www.uni-heidelberg.de/md/zentral/studium/studierendenstatistik-ss2017v4.pdf retrieved 5 December 2017
part of	 Aliance 4EU+ 0 references	language used	 German 1 reference imported from Wikimedia project Turkish Wikipedia
logo image	 Logo University of Heidelberg.svg 1,727 × 1,700; 795 KB 1 reference imported from Wikimedia project Romanian Wikipedia		 English 0 references
		subsidiary	 Heidelberg Graduate School of

Now, all interwiki link data is stored in Wikidata (with some exceptions)...

Sitelinks

Wikipedia (108 entries)

- afwiki Heidelberg, Duitsland
- alswiki Heidelberg
- amwiki [ጎዳጃበርጎ](#)
- arwiki [هايدلبرغ](#)
- astwiki Heidelberg
- azbwiki [هايدلبرق](#)
- azwiki [Heydelberq](#)
- barwiki [Heidlbeag](#)
- be_x_oldwiki [Гайдэльбэрг](#)
- bewiki [Гайдэльбэрг](#)
- bgwiki [Хайделберг](#)
- brwiki Heidelberg
- bswiki Heidelberg
- cebwiki Heidelberg
- cswiki Heidelberg
- dachwiki Heidelberg
- dewiki Heidelberg
- elwiki Heidelberg
- enwiki Heidelberg
- eswiki Heidelberg
- etwiki Heidelberg
- euwiki Heidelberg
- fiwiki Heidelberg
- frwiki Heidelberg
- furwiki Heidelberg
- galwiki Heidelberg
- gawiki Heidelberg
- glwiki Heidelberg
- gswiki Heidelberg
- hewiki Heidelberg
- hewiki Heidelberg
- hrwiki Heidelberg
- huwiki Heidelberg
- idwiki Heidelberg
- itwiki Heidelberg
- itwiki Heidelberggas
- iwwiki Heidelberg
- jvwiki Heidelberg
- koiwiki Heidelberg
- lbwiki Heidelberg
- liwiki Heidelberg
- lmo wiki Heidelberg
- ltwiki Heidelberg
- ltwiki Heidelberg
- lvwiki Heidelberg
- mgwiki Heidelberg
- mkwiki [Хайделберг](#)
- mrwiki [हायडेलबर्ग](#)
- mswiki Heidelberg
- ndswiki Heidelberg
- nlwiki Heidelberg (Duitsland)
- nnwiki Heidelberg
- nowiki Heidelberg
- nywiki Heidelberg



The screenshot shows a Wikipedia article for Heidelberg. An orange arrow points to the 'In anderen Sprachen' section, which lists various language versions of the article. Below this, there is a table with information about the city's administration and a map of Heidelberg in Baden-Württemberg. The table includes the city's website, mayor, and a legend for the area's land use.

Stadtverwaltung:	69117 Heidelberg
Website:	www.heidelberg.de
Oberbürgermeister:	Eckart Würzner (parteilos)

Lage der Stadt Heidelberg in Baden-Württemberg



Flächenaufteilung [Bearbeiten | Quelltext bearbeiten]

10884 ha	Gesamtfläche
4424 ha = 40,6 %	Waldfläche
2860 ha = 26,3 %	Landwirtschaftsfläche
253 ha = 2,3 %	Wasserfläche

...and Wikipedia infoboxes can populate themselves from Wikidata.

La ciutat està situada, parcialment, al marge de l'estreta del riu **Neckar**, que divideix la ciutat en dues meitats i transcorre d'est a oest per anar a desembocar al **Rin** uns 22 km més endavant, passada la ciutat veïna de **Mannheim**.

Al final d'aquesta vall hi trobem els turons que envolten el barri antic: el Königstuhl (568 m), el més alt, i el Gaisberg (375 m).

Barris

Heidelberg té 15 barris i 47 districtes municipals diferents. Alguns d'ells eren antics pobles veïns que, fins a l'any 1975, va anar absorbint la ciutat.

El barri antic

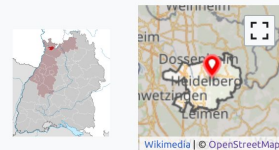
També anomenada "ciutat vella" per analogia amb el terme alemany corresponent, **Altstadt**. És el nucli històric de la ciutat i és on es troben la major part de les zones d'interès turístic. Està situat a la banda sud del Neckar, en l'estreta franja plana que hi ha entre la llera del riu i el turó del Königstuhl.

En aquest barri hi trobem el castell de Heidelberg (*Heidelberger Schloß*), el pont vell (*Alte Brücke*), les esglésies com la Heiliggeistkirche i la Jesuitenkirche, l'antiga presó dels estudiants (*Studentenkarzer*) o les places com ara la Karlsplatz, el Kornmarkt, la Martkplatz o la Universitätsplatz.

És al llarg de tot el barri antic que, durant les quatre setmanes d'advent, s'hi instal·la el mercat de Nadal (*Weihnachtsmarkt*).

A l'extrem oest de l'Altstadt hi ha la plaça Bismarckplatz, que és el punt central del transport públic local i marca el final del barri.

Localització



49° 24′ 44″ N, 8° 42′ 36″ E

Estat	Alemanya
Estat federat	Baden-Württemberg
Regió administrativa	Karlsruhe
Capital de	Electorat del Palatinat

Població


Total	160.601 (2017)
• Densitat	1.474,89 hab/km²

Geografia

Part de	Àrea metropolitana Rin-Neckar, Karlsruhe i Q1496439
Superfície	108,89 km²
Banyat per	Neckar
Altitud	114 m
Limita amb	Mannheim

Història i celebracions

Esdeveniment clau	Siege of Heidelberg
--------------------------	----------------------------------



Wikidata probably has the largest collection of linked IDs to other third-party databases, data sets, and knowledge bases.

Identifiers

German municipality key

 [08221000](#) 

1 reference

imported from Wikimedia project [English Wikipedia](#)

GND ID

 [4023996-2](#) 

1 reference

imported from Wikimedia project [German Wikipedia](#)

VIAF ID

 [144258029](#) 

1 reference

imported from Wikimedia project [German Wikipedia](#)

Library of Congress authority ID

 [n81096075](#) 

1 reference


imported from Wikimedia project [German Wikipedia](#)

DMOZ ID

 [Regional/Europe/Germany/States/](#)
[Baden-Württemberg/Localities](#)
[/Heidelberg/](#) 

0 references

MusicBrainz area ID

 [eee2e250-e74b-4216-896d-](#)
[ec1980ea123c](#) 

1 reference

stated in [MusicBrainz](#)

National Diet Library Auth ID

 [00000000000000000000000000000000](#) 

US National Archives Identifier

 [10044743](#) 

0 references

German district key

 [08221](#) 

0 references

EMLO location ID

 [9c3a2db5-866f-](#)
[4132-9279-86f04bc5de5e](#) 

0 references

Encyclopædia Universalis ID

 [heidelberg](#) 

0 references

DDB ID



[MQESL2XUAHY2FEVOAN7T3MFB7ITEIA](#)
[UR](#) 

1 reference

imported from Wikimedia project [German Wikipedia](#)

Encyclopædia Britannica Online ID

 [place/Heidelberg](#) 

0 references

archINFORM location ID

 [145](#) 

1 reference

reference URL https://www.archinform.net/service/wd_aiort.php 

stated in [archINFORM](#)

Wikidata has grown outside its original purpose and is fast becoming a central data hub especially for GLAM institutions (galleries, libraries, archives, and museums).

Heidelberg (Germany)

URI(s)

- <http://id.loc.gov/authorities/names/n81096075>

Instance Of

- [MADS/RDF Geographic](#)
- [MADS/RDF Authority](#)
- [SKOS Concept](#)

Scheme Membership(s)

- [Library of Congress Name Authority File](#)

Collection Membership(s)

- [Names Collection - Authorized Headings](#)
- [LC Names Collection - General Collection](#)

Variants

- [Geïdel'berg \(Germany\)](#)

Additional Information

- <http://id.loc.gov/rwo/agents/n81096075>

Close Matching Concepts from Other Schemes

[Heidelberg](#)

[Germany--Heidelberg Region](#)

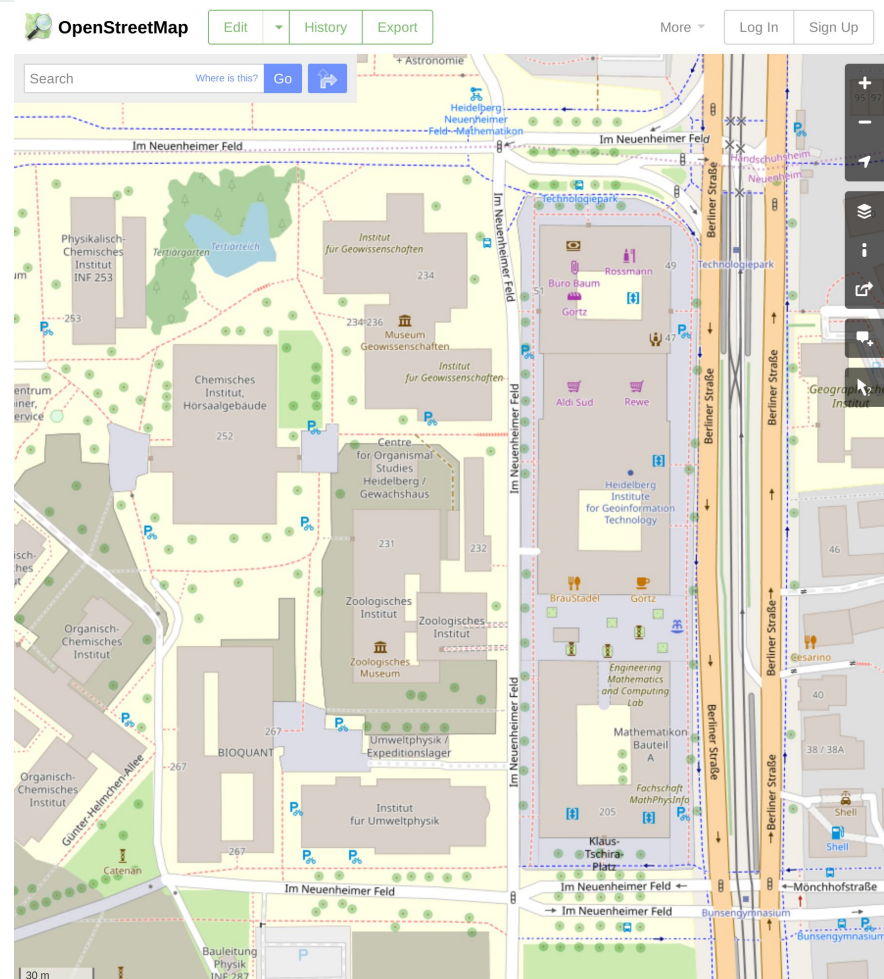
[Heidelberg](#) Label from public data source Wikidata

Sources

- found: Heidelberg, die Nekarstadt ... 1951.
- found: Osip Mandel'shtam v Geïdel'berge, 1994.

Wikidata data model

OpenStreetMap has nodes, ways, relations, tags, keys, values, roles, etc.



Wikidata has items,
statements, properties,
values, qualifiers, etc.



Wikidata

Search Wikidata

(Q151510)



English

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public research university in Heidelberg, Baden-Württemberg, Germany

Ruprecht-Karls-Universität Heidelberg | University of Heidelberg

Statements

instance of

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1 reference

retrieved 16 March 2019

[campus](#)

0 references

part of

[Aliance 4EU+](#)

0 references

logo image



[Logo University of Heidelberg.svg](#)

1,727 × 1,700; 795 KB

1 reference

imported from Wikimedia project [Romanian Wikipedia](#)

students count

30,787

point in time 1 December 2016

1 reference

reference URL https://de.wikipedia.org/wiki/Liste_der_Hochschulen_in_Deutschland
<https://www.uni-heidelberg.de/md/studium/download/studierendenstatistik-ws201617.pdf>

retrieved 28 September 2017

5 December 2017

28,413

point in time 1 June 2017

1 reference

reference URL <https://www.uni-heidelberg.de/md/zentral/studium/studierendenstatistik-ss2017v4.pdf>
retrieved 5 December 2017

language used

[German](#)

1 reference

imported from Wikimedia project [Turkish Wikipedia](#)

[English](#)

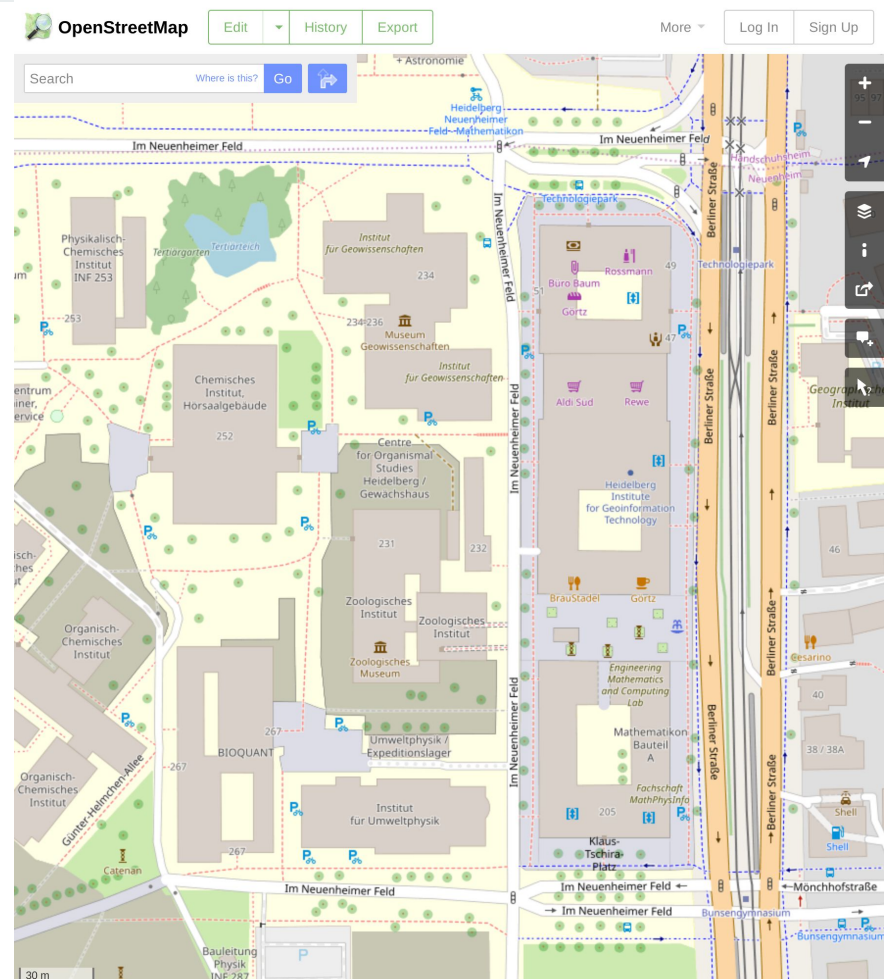
0 references


subsidiary

[Heidelberg Graduate School of](#)

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

(Both projects struggle with ontology issues because both projects are examples of folksonomies.)





Wikidata data is stored as a bunch of **triples**. The most basic triples in Wikidata are called **statements**.

This design is heavily based on W3C's Resource Description Framework [RDF].

triple

=

subject

+

predicate

+

object

—

Triples, subjects, predicates, and objects are represented as IRIs.

Earth has the IRI:

<http://www.wikidata.org/entity/Q2>

Or **Q2** for short.

Wikidata triple

=

Earth (Q2)

+

instance of (P31)

+

inner planet (Q3504248)

—

Triples *themselves* can be subjects of secondary triples, allowing us to *qualify* and add sourcing info. These secondary triples are called *qualifiers* and *references*, respectively.

Heidelberg (Q2966)

population (P1082)

150,335

point in time (P585)

2012-12-31

Shown here are how various triples, subjects, predicates, and objects related to Curie are represented in Wikidata, and the common terms Wikidatans use to refer to them depending on context.

The image shows a Wikidata entry for Marie Curie (Q7186) with various annotations. The entry is titled "Marie Curie (Q7186)" and has a description: "Polish-French physicist and chemist". The entry is annotated with several terms:

- label**: Marie Curie (Q7186)
- description**: Polish-French physicist and chemist
- aliases**: Maria Skłodowska-Curie | Maria Salomea Skłodowska | Madame Curie
- property**: award received
- value**: Nobel Prize in Physics
- qualifiers**: point in time (1903), together with (Henry Becquerel, Pierre Curie), prize money (35,339 Swedish krona)
- rank**: 2 references
- statement group**: Willard Gibbs Award
- opened references**: reference URL, retrieved, publisher, language of work or name, title, reference URL
- collapsed reference**: 1 reference

The entry also includes a "Statements" section with a table of qualifiers for the Nobel Prize in Physics award:

Qualifier	Value
point in time	1903
together with	Henry Becquerel, Pierre Curie
prize money	35,339 Swedish krona

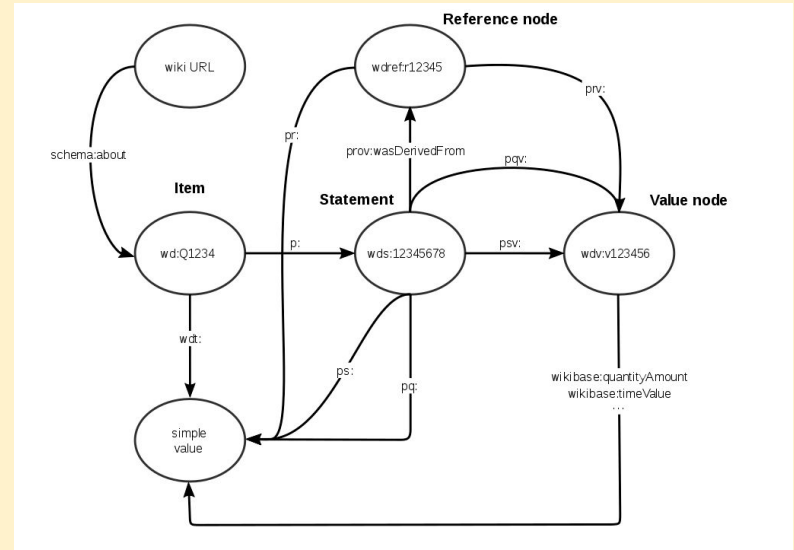
The entry also includes a "References" section with a table of references for the Willard Gibbs Award:

Reference	Value
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/

Advanced: This is a more complete RDF data model for the main Wikidata space.

Useful when you need to fully understand the model or craft advanced queries.

https://www.mediawiki.org/wiki/Wikibase/Indexing/RDF_Dump_Format



Aside: Wikidata also has **lexemes** (L-namespace) for lexicographic data, **structured data for Wikimedia Commons (SDC)** (M-namespace), and **shape expressions** (E-namespace).

to go (L23773)
English verb

Forms go, goes, went, gone [\[expand\]](#) (4 forms, 6 statements)

Senses

(S1) to move through space [\[expand\]](#) (3 statements)
(S2) to work or function (properly); to move or perform as required [\[expand\]](#) (2 statements)

Statements

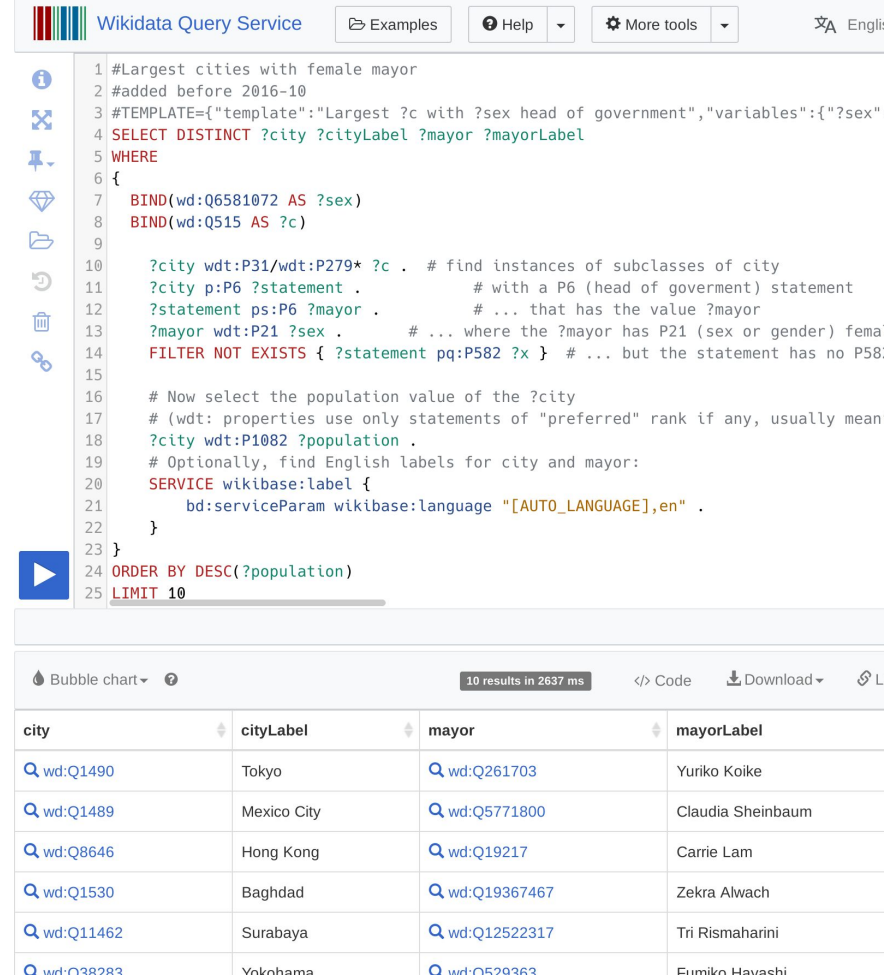
Etymology gon [\[edit\]](#)
stated in Oxford Etymological Lexicon
edition 3rd

Wikidata Query Service

The Wikidata Query Service (WDQS) is the official API for querying data from Wikidata.

Think: Overpass API/Turbo for Wikidata.

<https://query.wikidata.org>



The screenshot shows the Wikidata Query Service interface. At the top, there's a header with the Wikidata logo, the text "Wikidata Query Service", and navigation buttons for "Examples", "Help", and "More tools". Below the header is a text area containing a SPARQL query. The query is designed to find the largest cities with a female mayor, ordered by population in descending order, limited to 10 results. The query includes comments explaining the various parts, such as finding subclasses of city, filtering for female mayors, and using a service to fetch English labels. Below the query editor, there's a play button and a status bar indicating "10 results in 2637 ms". The results are displayed in a table with columns for city, cityLabel, mayor, and mayorLabel. The first few results are Tokyo (Yuriko Koike), Mexico City (Claudia Sheinbaum), Hong Kong (Carrie Lam), Baghdad (Zekra Alwach), Surabaya (Tri Rismaharini), and Yokohama (Fumiko Hayashi).

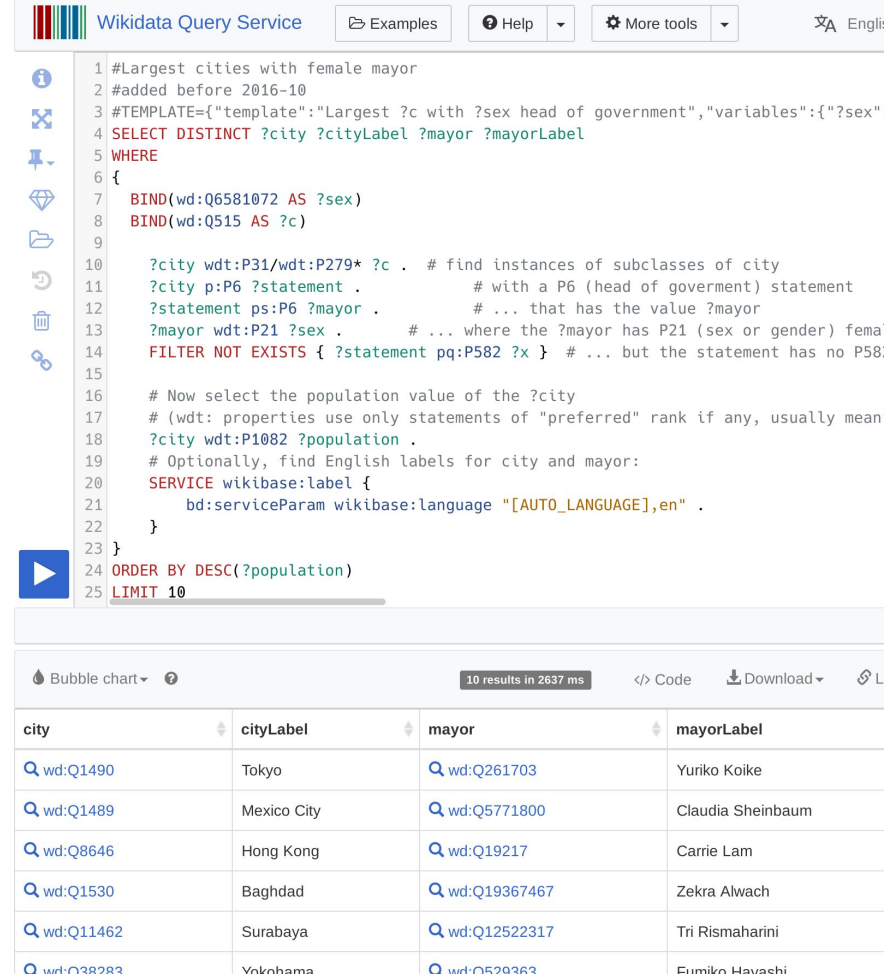
```
1 #Largest cities with female mayor
2 #added before 2016-10
3 #TEMPLATE={"template":"Largest ?c with ?sex head of government","variables":{"?sex":
4 SELECT DISTINCT ?city ?cityLabel ?mayor ?mayorLabel
5 WHERE
6 {
7   BIND(wd:Q6581072 AS ?sex)
8   BIND(wd:Q515 AS ?c)
9
10  ?city wdt:P31/wdt:P279* ?c . # find instances of subclasses of city
11  ?city p:P6 ?statement . # with a P6 (head of government) statement
12  ?statement ps:P6 ?mayor . # ... that has the value ?mayor
13  ?mayor wdt:P21 ?sex . # ... where the ?mayor has P21 (sex or gender) fema
14  FILTER NOT EXISTS { ?statement pq:P582 ?x } # ... but the statement has no P58
15
16  # Now select the population value of the ?city
17  # (wdt: properties use only statements of "preferred" rank if any, usually mean
18  ?city wdt:P1082 ?population .
19  # Optionally, find English labels for city and mayor:
20  SERVICE wikibase:label {
21    bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en" .
22  }
23 }
24 ORDER BY DESC(?population)
25 LIMIT 10
```

Bubble chart ? 10 results in 2637 ms </> Code Download ? L

city	cityLabel	mayor	mayorLabel
Q1490	Tokyo	Q261703	Yuriko Koike
Q1489	Mexico City	Q5771800	Claudia Sheinbaum
Q8646	Hong Kong	Q19217	Carrie Lam
Q1530	Baghdad	Q19367467	Zekra Alwach
Q11462	Surabaya	Q12522317	Tri Rismaharini
Q38283	Yokohama	Q529363	Fumiko Hayashi

WDQS uses W3C's SPARQL as the query language.

<https://www.w3.org/TR/sparql11-query/>
https://www.wikidata.org/wiki/Wikidata:SPARQL_tutorial



The screenshot shows the Wikidata Query Service interface. At the top, there is a header with the Wikidata logo, the text "Wikidata Query Service", and navigation buttons for "Examples", "Help", and "More tools". Below the header is a text area containing a SPARQL query. The query is as follows:

```
1 #Largest cities with female mayor
2 #added before 2016-10
3 #TEMPLATE={"template":"Largest ?c with ?sex head of government","variables":{"?sex"/
4 SELECT DISTINCT ?city ?cityLabel ?mayor ?mayorLabel
5 WHERE
6 {
7   BIND(wd:Q6581072 AS ?sex)
8   BIND(wd:Q515 AS ?c)
9
10  ?city wdt:P31/wdt:P279* ?c . # find instances of subclasses of city
11  ?city p:P6 ?statement . # with a P6 (head of government) statement
12  ?statement ps:P6 ?mayor . # ... that has the value ?mayor
13  ?mayor wdt:P21 ?sex . # ... where the ?mayor has P21 (sex or gender) fema
14  FILTER NOT EXISTS { ?statement pq:P582 ?x } # ... but the statement has no P58
15
16  # Now select the population value of the ?city
17  # (wdt: properties use only statements of "preferred" rank if any, usually mean
18  ?city wdt:P1082 ?population .
19  # Optionally, find English labels for city and mayor:
20  SERVICE wikibase:label {
21    bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en" .
22  }
23 }
24 ORDER BY DESC(?population)
25 LIMIT 10
```

Below the query area, there is a blue play button icon. Underneath that, there is a status bar showing "10 results in 2637 ms" and buttons for "Code", "Download", and "L". At the bottom, there is a table with the following columns: "city", "cityLabel", "mayor", and "mayorLabel". The table contains 10 rows of data:

city	cityLabel	mayor	mayorLabel
Q1490	Tokyo	Q261703	Yuriko Koike
Q1489	Mexico City	Q5771800	Claudia Sheinbaum
Q8646	Hong Kong	Q19217	Carrie Lam
Q1530	Baghdad	Q19367467	Zekra Alwach
Q11462	Surabaya	Q12522317	Tri Rismaharini
Q38283	Yokohama	Q529363	Fumiko Hayashi

Examples and hands-on time!

```
1 #Largest cities with female mayor
2 #added before 2016-10
3 #TEMPLATE={"template":"Largest ?c with ?sex head of government","variables":{"?sex":
4 SELECT DISTINCT ?city ?cityLabel ?mayor ?mayorLabel
5 WHERE
6 {
7   BIND(wd:Q6581072 AS ?sex)
8   BIND(wd:Q515 AS ?c)
9
10  ?city wdt:P31/wdt:P279* ?c . # find instances of subclasses of city
11  ?city p:P6 ?statement . # with a P6 (head of government) statement
12  ?statement ps:P6 ?mayor . # ... that has the value ?mayor
13  ?mayor wdt:P21 ?sex . # ... where the ?mayor has P21 (sex or gender) fema
14  FILTER NOT EXISTS { ?statement pq:P582 ?x } # ... but the statement has no P58
15
16 # Now select the population value of the ?city
17 # (wdt: properties use only statements of "preferred" rank if any, usually mean
18 ?city wdt:P1082 ?population .
19 # Optionally, find English labels for city and mayor:
20 SERVICE wikibase:label {
21   bd:serviceParam wikibase:language "[AUTO_LANGUAGE],en" .
22 }
23 }
24 ORDER BY DESC(?population)
25 LIMIT 10
```

Bubble chart [?](#) 10 results in 2637 ms [Code](#) [Download](#) [L](#)

city	cityLabel	mayor	mayorLabel
Q1490	Tokyo	Q261703	Yuriko Koike
Q1489	Mexico City	Q5771800	Claudia Sheinbaum
Q8646	Hong Kong	Q19217	Carrie Lam
Q1530	Baghdad	Q19367467	Zekra Alwach
Q11462	Surabaya	Q12522317	Tri Rismaharini
Q38283	Yokohama	Q529363	Fumiko Hayashi

Wikidata tools and apps

Monumental is a site that allows you to explore built heritage and learn more about monuments.

<https://tools.wmflabs.org/monumental/>


MONUMENTAL Heidelberg Castle

Heidelberg Castle
Heidelberger Schloss

Heidelberg · Karlsruhe Government Region · Baden-Württemberg · Germany

50 images and 28 subcategories 33 languages

Kulturdenkmal schloss-heidelberg.de



Wikipedia

Das **Heidelberger Schloss** ist eine der berühmtesten Ruinen Deutschlands und das Wahrzeichen der Stadt Heidelberg. Bis zu seiner Zerstörung im Pfälzischen Erbfolgekrieg war es die Residenz der Kurfürsten von der Pfalz. Seit den Zerstörungen durch die Soldaten Ludwigs XIV. 1689 und der Sprengung durch französische Pioniere am 6. September 1693 wurde das Heidelberger Schloss nur teilweise restauriert. Nachdem am 24. Juni 1764 Blitze die teilweise renovierte Anlage in Brand gesetzt hatten, wurde die Wiederherstellung aufgegeben. Die Schlossruine aus rotem Neckartäler Sandstein erhebt sich 80 Meter über dem Talgrund am Nordhang des Königstuhls und dominiert von dort das Bild der Altstadt. Der Ottheinrichsbau, einer der Palastbauten des Schlosses, zählt zu den bedeutendsten Bauwerken des deutschen Manierismus. In der kulturgeschichtlichen Epoche der Romantik wurde die Schlossruine zu einem Inbegriff einer vergangenen und bewundernswerten Epoche stilisiert. Es zählt heute zu den meistbesuchten touristischen Sehenswürdigkeiten Europas.

[READ MORE ON WIKIPEDIA](#)

Properties

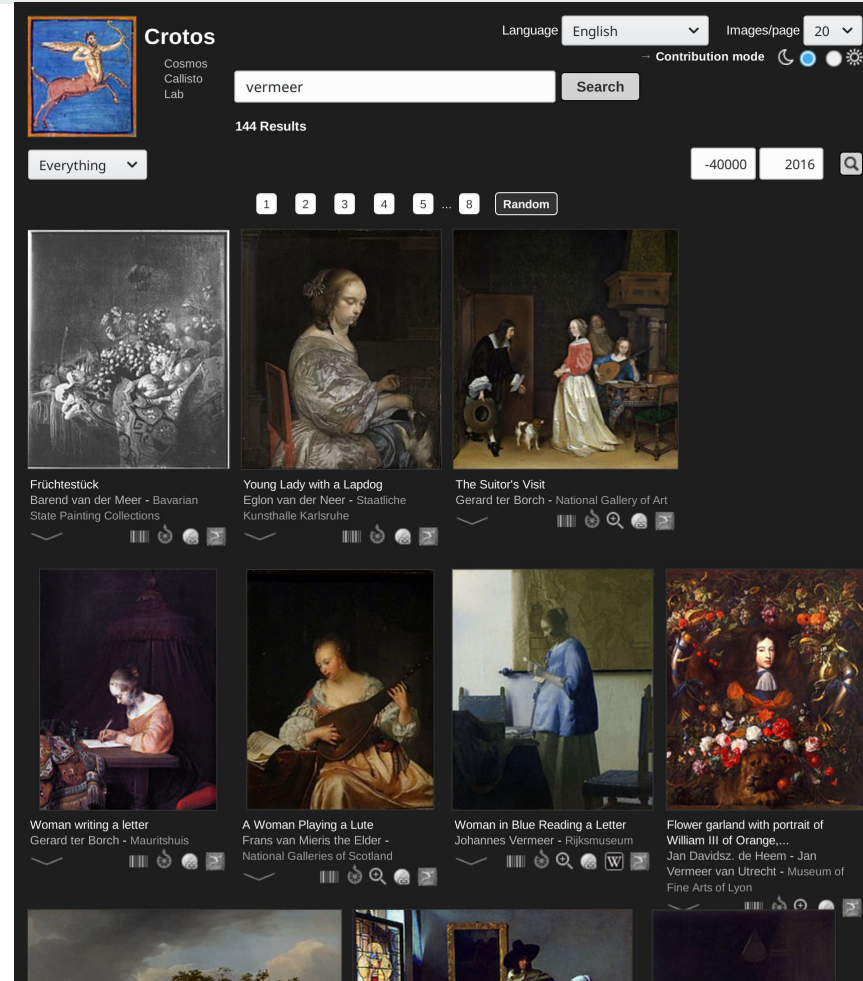
General data

instance of

- château
- castle
- sandstone
- Gothic architecture
- Renaissance architecture

Crotos is a search and display engine for visual artworks, based on Wikidata and using Wikimedia Commons files.

<https://http://zone47.com/crotos/>

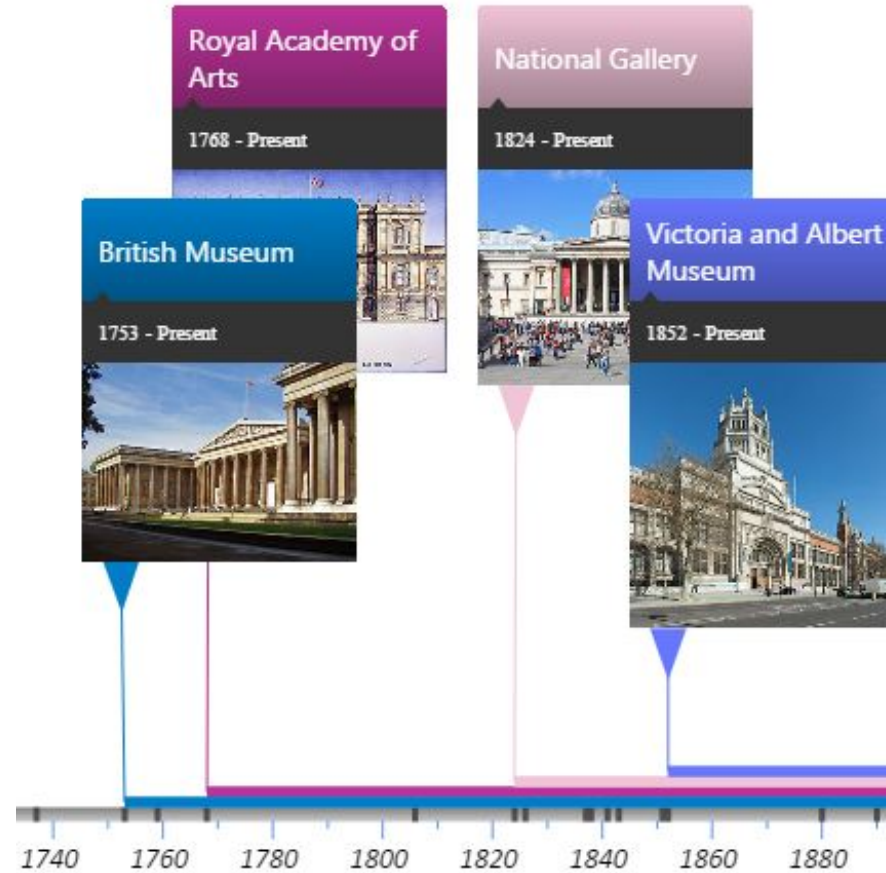


The screenshot displays the Crotos search engine interface. At the top left, there is a logo for Crotos featuring a winged figure on a deer, with the text "Crotos" and "Cosmos Callisto Lab" below it. To the right, there are settings for "Language" (English) and "Images/page" (20). A search bar contains the text "vermeer" and a "Search" button. Below the search bar, it indicates "144 Results". A filter dropdown is set to "Everything". On the right side, there are date range filters for "-40000" and "2016", and a search icon. Below these are pagination controls showing "1 2 3 4 5 ... 8" and a "Random" button. The main area displays a grid of search results, each with a thumbnail image and a caption. The visible results include:

- Früchtestück** by Barend van der Meer - Bavarian State Painting Collections
- Young Lady with a Lapdog** by Eglon van der Neer - Staatliche Kunsthalle Karlsruhe
- The Suitor's Visit** by Gerard ter Borch - National Gallery of Art
- Woman writing a letter** by Gerard ter Borch - Mauritshuis
- A Woman Playing a Lute** by Frans van Mieris the Elder - National Galleries of Scotland
- Woman in Blue Reading a Letter** by Johannes Vermeer - Rijksmuseum
- Flower garland with portrait of William III of Orange...** by Jan Davidsz. de Heem - Jan Vermeer van Utrecht - Museum of Fine Arts of Lyon

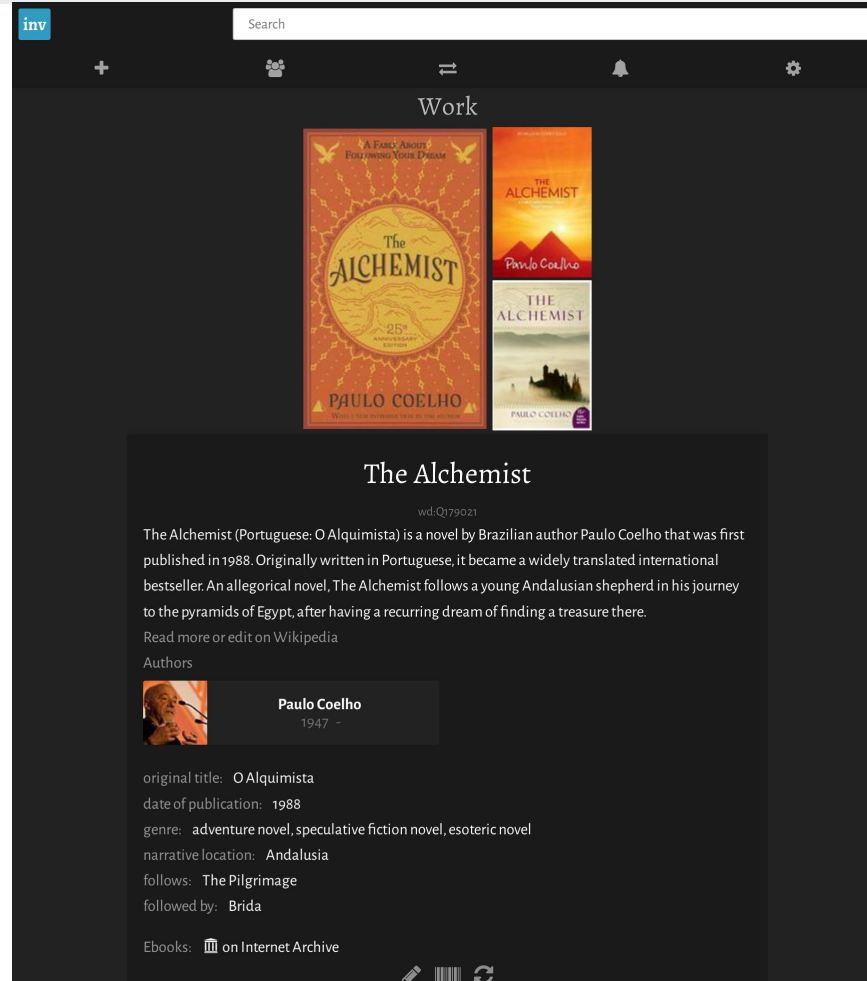
Histropedia allows you to generate interactive timelines with events linked to Wikipedia articles.

<http://histropedia.com/>



Inventaire: keep an inventory of your books!

<https://inventaire.io/>



The screenshot shows the 'Work' section of the Inventaire.io application. At the top, there is a search bar and navigation icons. Below the 'Work' header, three book covers for 'The Alchemist' by Paulo Coelho are displayed. The main entry for 'The Alchemist' is shown below, including its Wikidata ID (wd:Q179021), a detailed description, author information, and related titles.


Work

The Alchemist
wd:Q179021


The Alchemist (Portuguese: O Alquimista) is a novel by Brazilian author Paulo Coelho that was first published in 1988. Originally written in Portuguese, it became a widely translated international bestseller. An allegorical novel, The Alchemist follows a young Andalusian shepherd in his journey to the pyramids of Egypt, after having a recurring dream of finding a treasure there.

[Read more or edit on Wikipedia](#)

Authors

 **Paulo Coelho**
1947 -

original title: **O Alquimista**
date of publication: **1988**
genre: **adventure novel, speculative fiction novel, esoteric novel**
narrative location: **Andalusia**
follows: **The Pilgrimage**
followed by: **Brida**

Ebooks:  on [Internet Archive](#)

More tools are listed on Wikidata:

https://www.wikidata.org/wiki/Wikidata:Tools/Visualize_data



Wikidata

Search Wikidata

Wikidata:Tools/Visualize data



< Wikidata:Tools

Visualize data

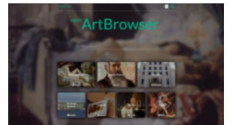
Other languages: [Deutsch](#) • [English](#) • [Nederlands](#) • [asturianu](#) • [dansk](#) • [español](#) • [français](#) • [português](#) • [slovenščina](#) • [svenska](#) • [čeština](#) • [македонски](#) • [русский](#) • [العربية](#) • [ไทย](#) • [日本語](#)

Ancient intellectual network [↗](#)

Dataviz map of the relationships between master and student from Socrates to the end of the Hellenistic Period.

Art Browser [↗](#)

OpenArtBrowser invites you to browse through the world of arts, enjoy beautiful artworks and learn interesting things. We provide paintings, drawings and sculptures all over the world and from many periods. For each artwork, metadata and related artworks are shown. Related means, that the artworks share the same artist, movement, or even motif.



Art Browser

CHAPTER 2

Linked Open Data

First: How OSM and Wikimedia benefit from each other

OSM has been used to create maps to illustrate Wikipedia articles and populate Wikimedia Commons.

Weybridge

This is an **old revision** of this page, as edited by **80N** ([talk](#) | [contribs](#)) at 08:39, 20 March 2006 (Add map from [openstreetmap.org](#)). The present address (URL) is a **permanent link** to this revision, which may differ significantly from the **current revision**.
(diff) – [Previous revision](#) | [Latest revision \(diff\)](#) | [Newer revision](#) → (diff)

文A



Weybridge is a town in the [Elmbridge](#) district of [Surrey](#) in [South East England](#). It is bounded to the North by the [River Thames](#) at the mouth of the [River Wey](#), from which it gets its name.



Map of Weybridge (from OpenStreetMap.org)

Contents

History

The early history of Weybridge was simply as a river crossing. In [1537](#) it became the location of [Oatlands Palace](#) built by [Henry VIII](#). When it was demolished in [1650](#), bricks from its walls helped to line the then new Wey Navigation. Part of the original site of the Palace is now occupied by Oatlands Park Hotel.

At the bottom of Monument Hill, close to the town centre is a monument to the Duchess of York, erected by public subscription in 1820 from the remains of the original [Seven Dials](#) Monument that stood in St.Martin's Lane London until 1773.

The famous former [Brooklands](#) Aerodrome and Race Circuit is located here, just south of the railway station. It is now the location for the Brooklands Museum. Brooklands was also the home

OSM has been used to create maps to illustrate Wikipedia articles and populate Wikimedia Commons.



OSM powers the Wikimedia Foundation's [Kartotherian](#) map tile service, which is used by the [Kartographer](#) MediaWiki extension and almost all other interactive maps on the Wikimedia projects.

Centro Storico is just as full of historic monuments as it is of designer boutiques and showrooms, restaurants and cafes - you will find almost all one comes to find in Milan for within not more than a quarter's walk.

The defunct old Milan district of "*Centro Storico*" included a broader area; the area covered in this guide corresponds to the *Quartiere 101 - Duomo* of the present-day *Zona 1*.

^ Get in

To get to the Centro Storico usually means getting to its very central point - the Piazza Duomo. Two metro lines cross ride underneath it, and many trams stop right next to the Piazza. The only train station within the Centro Storico is Milano Cadorna, on its western outskirts.

From Milano Malpensa Airport

Take the Malpensa Express to Milano Cadorna station and from there simply enjoy the Centro Storico by walking eastwards, or take the metro for the **1**

Duomo **M1** **M3**. Trams 1 and 27 will also take you into the heart of the Centro Storico, over a route with some memorable views.

From Linate Airport

The bus lines 73 and X73 connect the Linate Airport with Piazza San Babila in the east of the Centro Storico, which has a station on the **M1** network.

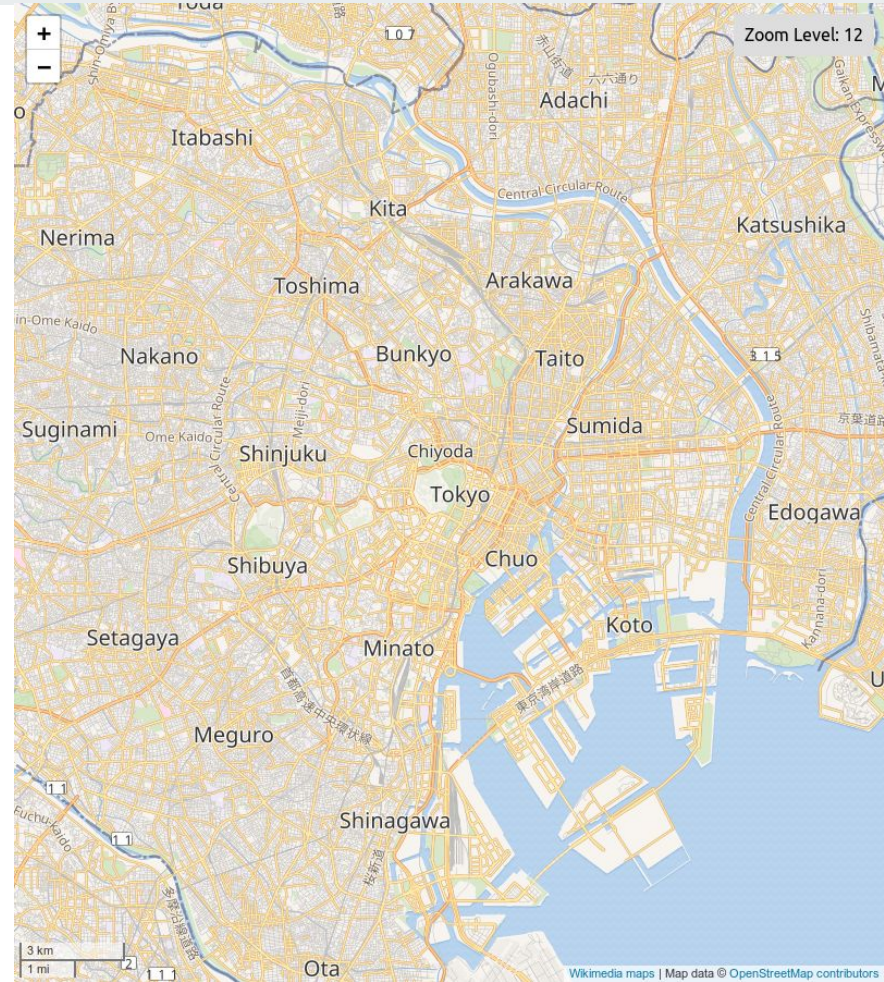


Map of Milan/Centro Storico



The Duomo metro station on M1 and M3

The Wikimedia Foundation released internationalized map tiles for Kartotherian, leveraging OSM's `name:*=*` tags.



WikiMiniAtlas, an older MediaWiki plugin still in use in many Wikipedias, is also powered by OSM data, including 3D building data.



The **OSM Wiki** is powered by **MediaWiki**, the wiki engine developed by Wikimedia, and this also provides access to **Wikimedia Commons** images.



- Main Page
- The map
- Map Features
- Contributors
- Help
- Blogs
- Shop
- Donations
- Recent changes

- Tools
- What links here
- Related changes
- Special pages
- Printable version
- Permanent link
- Page information
- Cite this page

Create account Log in

Page Discussion Read View source View history Search OpenStreetMap Wiki

Tag:man_made=adit

Available languages — Tag:man_made=adit

· čeština · Deutsch · **English** · español · français · polski · português · русский · 日本語 · 粵語

An **adit** is a (nearly) horizontal entrance to the underground, by which resources can be extracted or a mine can be entered, ventilated or drained of water. The visible portal of the adit is mapped as a node.

Tagging

man_made=adit

The adit itself. In case of a node, it is describing the entrance point at the surface.

resource=*

The resource that is or was extracted in the mine. Visit the resources page to view a list of common values.

operator=*

The operator of the adit, usually the operator of the surrounding mine.

length=*

length of the adit in meters (or other specified unit).

name=*

The name of the adit.

direction=*

pointing from the gallery outwards (useful only if the adit is mapped as a node)

All of these tags may coexist on a single node.

Rendering

Common symbol for an operating mine: hammer and pick



Description

A type of entrance to an underground mine which is horizontal or nearly horizontal.

Used on these elements



Useful combination

- name=*
- operator=*
- resource=*
- disused=*

See also

- man_made=mineshaft
- historic=mine
- natural=cave_entrance

Wikidata

Q58917

Status: in use

tagInfo [More...]

7971 0.65%

The OpenStreetMap Foundation has derived its [Local Chapters agreement](#), [Trademark Policy](#), and [Terms of Use](#) from corresponding documents from the Wikimedia Foundation.

Trademark Policy

[Contents](#) [show]

Adopted by the OSMF board on January the 7th 2018.

Introduction

Why does OpenStreetMap have marks?

The OpenStreetMap marks represent OpenStreetMap and its work to bring open map data to the entire world. When users see the OpenStreetMap name and logo, they should be confident that they are looking at a high quality map that is the result of the rigorous and comprehensive collaboration process of OpenStreetMap. Trademark protection helps reinforce that connection.

What are the goals of this trademark policy?

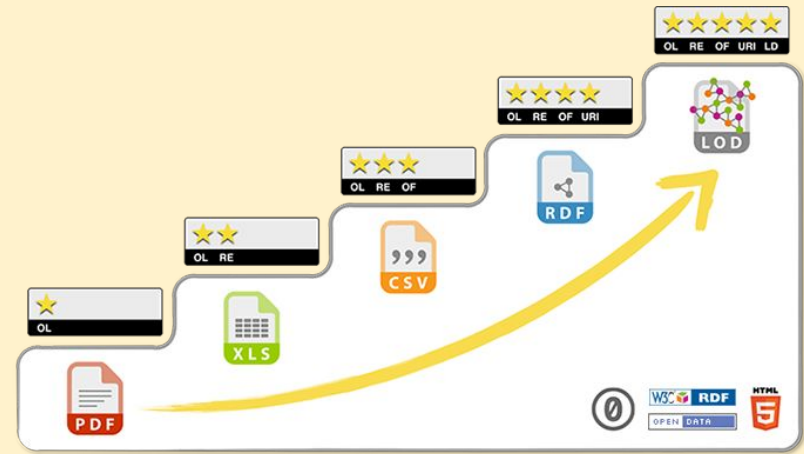
The goodwill supporting the OpenStreetMap marks has been generated by a prolific and passionate volunteer community. The OpenStreetMap Foundation has prepared this policy to preserve and protect that goodwill by ensuring that uses of the marks are consistent with OpenStreetMap's mission and promote the OpenStreetMap movement.

How is this trademark policy different from most trademark policies?

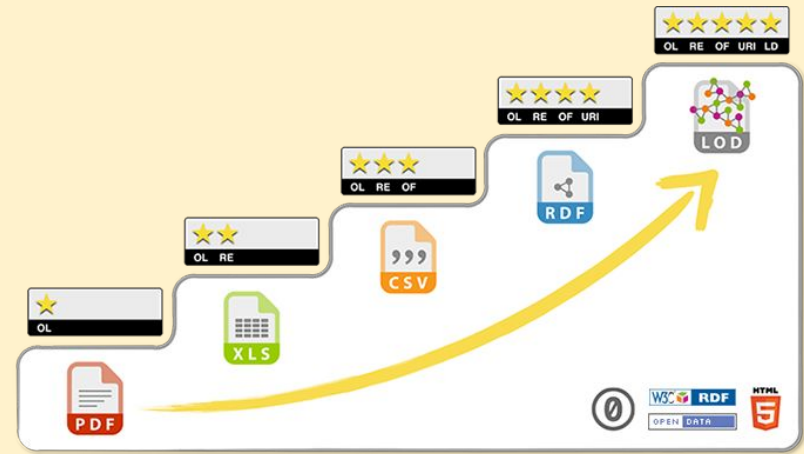
This trademark policy seeks to make trademark licensing as easy as possible for the contributors who created OpenStreetMap, by making explicit that many uses do not require a trademark licence, and by empowering them to use OpenStreetMap's marks without a trademark licence for community-focused

Why link OSM and Wikidata?

Tim Berners-Lee, the inventor of the World Wide Web and initiator of the W3C Linked Data project, suggested a 5 star deployment scheme for Linked Open Data.



-
1. On the Web
 2. Machine-readable
 3. Open data format
 4. In RDF (use IRIs)
 5. Linked to other datasets



Wikidata items on places
can link to OSM relations
using the OSM relation ID
(P402) property.

Wikidata

(Q2966) ☆

English

Heidelberg

city in Baden-Württemberg, Germany

Identifiers

Freebase ID /m/0cm5m 1 reference stated in Freebase Data Dumps publication date 28 October 2013	Encyclopædia Britannica Online ID place/Heidelberg 0 references
NUTS code DE125 0 references	archINFORM location ID 145 1 reference reference URL https://www.archinform.net/service/wd_aiort.php stated in archINFORM retrieved 5 August 2018
Nomisma ID heidelberg 0 references	National Library of Israel identifier 000986952 1 reference stated in Virtual International Authority File VIAF ID 144258029 reference URL http://www.viaf.org/viaf/144258029/ retrieved 1 April 2016
OSM relation ID 285864 0 references	Great Russian Encyclopedia Online ID 2347969 0 references
Quora topic ID Heidelberg-Germany 0 references	Image Archive, Herder Institute Q2966 0 references
US National Archives Identifier 10044743 0 references	

OSM objects can link to corresponding Wikipedia articles and Wikidata items using the wikipedia=* and wikidata=* tags respectively.

There are also secondary tags like `brand:wikidata=` and `architect:wikidata=*`.*

OpenStreetMap Edit History Export More Log In Sign Up

Search Where is this? Go

Relation: Heidelberg (285864)

Translations - Arabic
Edited 9 months ago by أحمد أبو
Version #29 - Changeset #65537272

Tags

admin_level	6
alt_name:ar	هايدلبرج
boundary	administrative
de:amtlicher_gemeindeschlüssel	08221000
de:place	city
de:regionalschlüssel	08221000000
name	Heidelberg
name:ar	هايدلبرج
name:de	Heidelberg
name:el	ΧαϊδεΑβέργη
name:ko	하이델베르크
name:prefix	Stadt
name:ru	Гидельберг
source	www.lgl-bw.de
type	boundary
wikidata	Q2966
wikipedia	de:Heidelberg

Part of
Relation Heidelberg (2998772) (as part)
Relation Metropolregion Rhein-Neckar (9033992) (as part)

Members

Max 33065894 as center

© OpenStreetMap contributors Make a Donation, Website and API terms

Ontology: Wikidata items about features can link to “equivalent” OSM features using the OSM tag or key (P1282) property.


0 references


[light source](#)
0 references


[sea mark](#)
0 references

[building](#)
0 references

image


Nantucket light 1.jpg
589 × 1,040; 127 KB
0 references


Lindau-Hafen-Sonnenuntergang.jpg
1,786 × 1,337; 293 KB
0 references



0 references

topic's main category

[Category:Lighthouses](#)
0 references

history of topic

[History of lighthouses](#)
0 references

described by source

[Nordisk familjebok](#)
0 references

[Armenian Soviet Encyclopedia](#)
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

[light house](#)
0 references

properties for this type

Ontology: Tag definitions on the OSM Wiki can link to “equivalent” Wikipedia articles and Wikidata items.



- Main Page
 - The map
 - Map Features
 - Contributors
 - Help
 - Blogs
 - Shop
 - Donations
 - Recent changes
- Tools
- What links here
 - Related changes
 - Special pages
 - Printable version
 - Permanent link
 - Page information
 - Cite this page

Tag:man_made=adit

Available languages — Tag:man_made=adit

· Česky · Deutsch · English · español · français · polski · português · русский · 日本語 · 粵語

An **adit** is a (nearly) horizontal entrance to the underground, by which resources can be extracted or a mine can be entered, ventilated or drained of water. The visible portal of the adit is mapped as a node.

Tagging

man_made=adit

The adit itself. In case of a node, it is describing the entrance point at the surface.

resource=*

The resource that is or was extracted in the mine. Visit the resources page to view a list of common values.

operator=*

The operator of the adit, usually the operator of the surrounding mine.

length=*

length of the adit in meters (or other specified unit).

name=*

The name of the adit.

direction=*

pointing from the gallery outwards (useful only if the adit is mapped as a node)

All of these tags may coexist on a single node.

Rendering

Common symbol for an operating mine: hammer and pick



Description

A type of entrance to an underground mine which is horizontal or nearly horizontal.

Used on these elements



Useful combination

- name=*
- operator=*
- resource=*
- disused=*

See also

- man_made=mineshaft
- man_made=adit
- man_made=mine
- man_made=natural=cave_entrance

Wikidata

Q58917

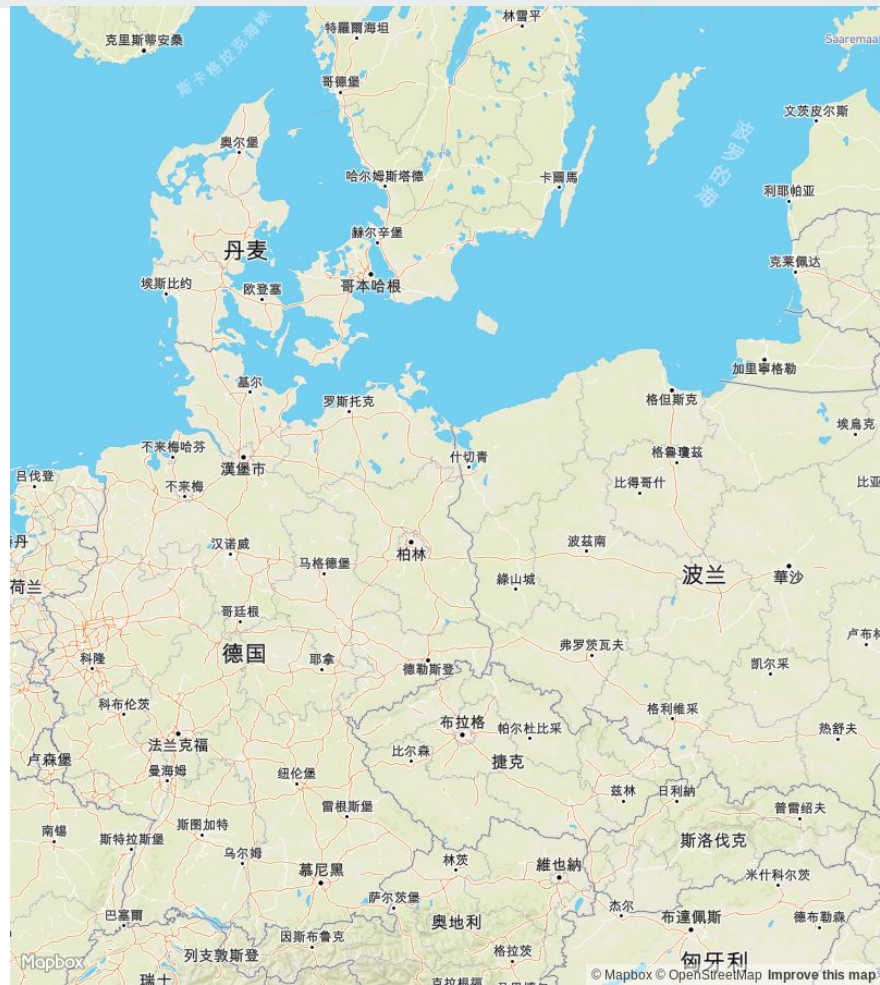
Status: in use

tagInfo [More...]

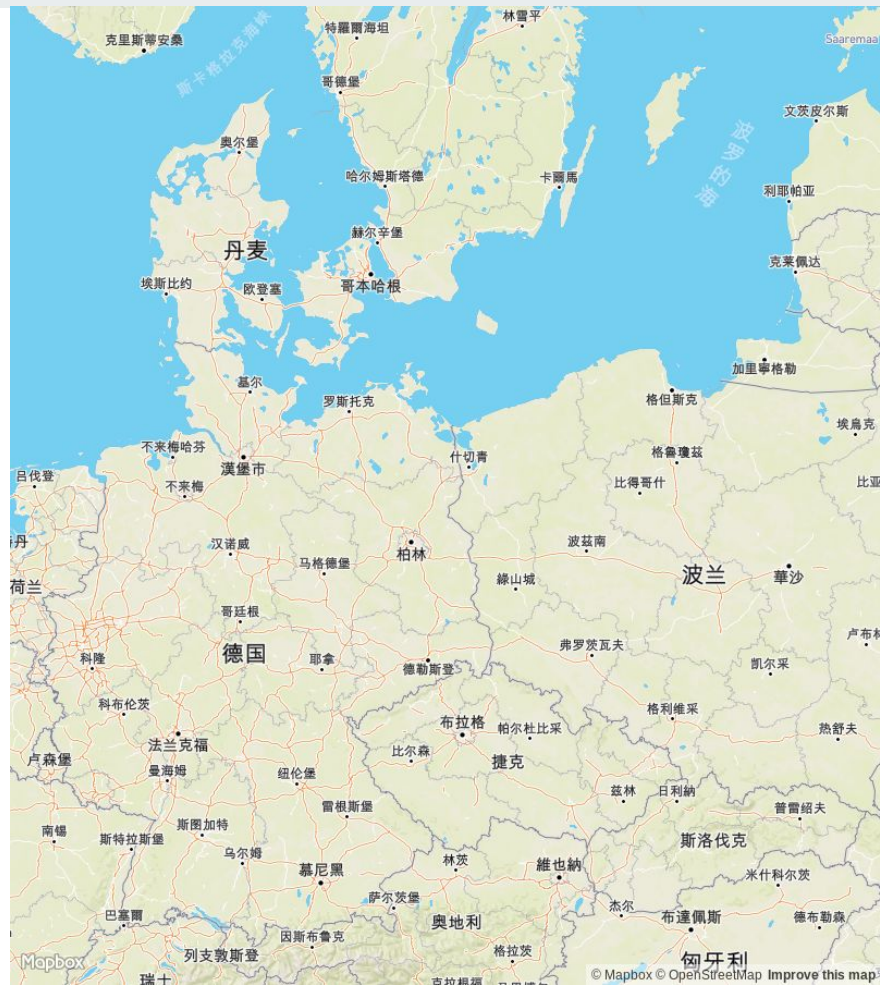
7971 0.65%

Mapbox and MapTiler uses Wikidata to help with the localization of their map products.

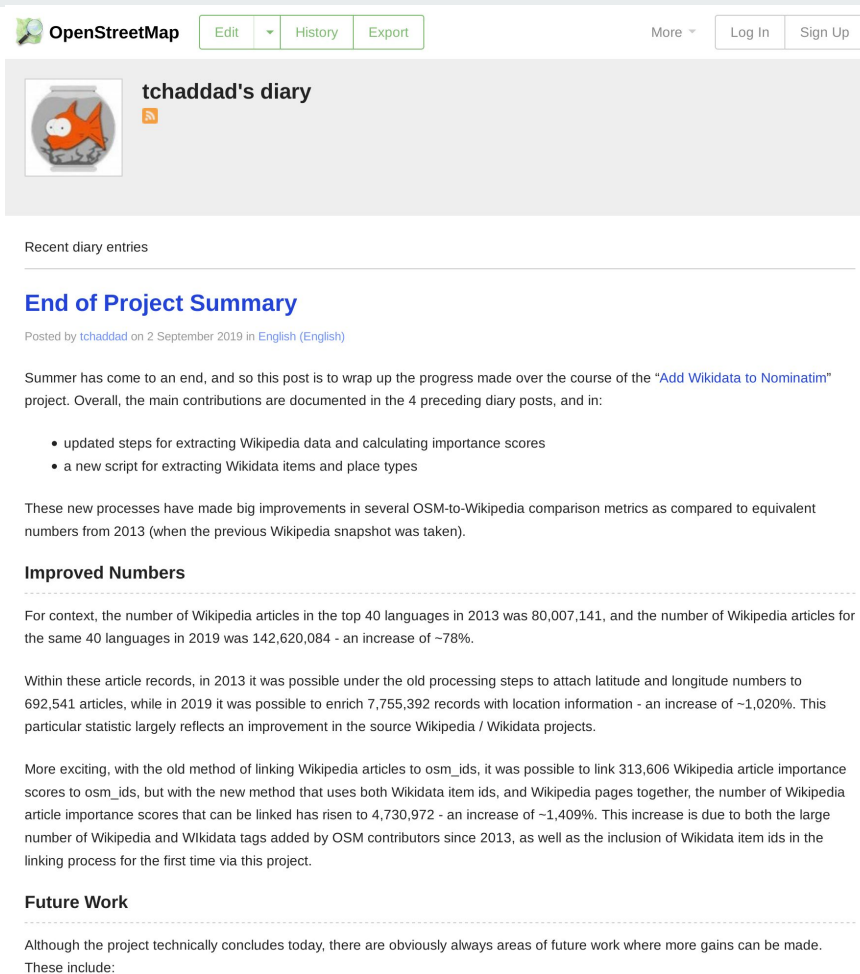
If there are missing `name:=*` tags on an OSM object, they pull labels from corresponding Wikidata entries.*



For example, **Heidelberg** has 13 and 5 `name:*=*` tags in its `place=city` node and admin boundary relation, while Wikidata has 123 labels for the item.



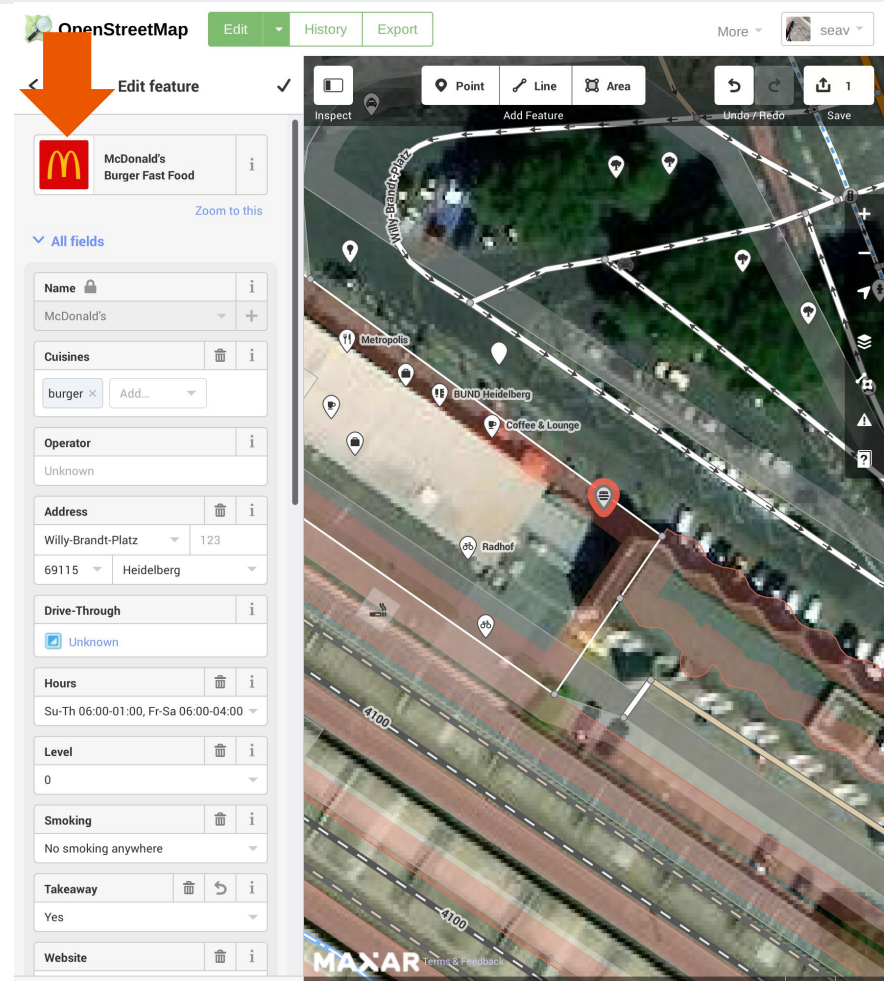
User tchaddad recently finished a GSoC project to integrate **wikidata=*** tags into **Nominatim**. This project is intended to improve the search results by looking at Wikidata for additional relevance data.



The screenshot shows the OpenStreetMap interface. At the top, there is a navigation bar with the OpenStreetMap logo, an 'Edit' button, a dropdown menu, 'History', and 'Export' buttons. On the right, there are 'More', 'Log In', and 'Sign Up' options. Below the navigation bar, the user profile for 'tchaddad's diary' is displayed, featuring a profile picture of a fish in a bowl and a small orange icon. The main content area is titled 'Recent diary entries' and features a section for 'End of Project Summary'. The summary is posted by tchaddad on 2 September 2019 in English (English). The text of the summary discusses the completion of a project to wrap up progress made over the course of the 'Add Wikidata to Nominatim' project. It lists two bullet points: 'updated steps for extracting Wikipedia data and calculating importance scores' and 'a new script for extracting Wikidata items and place types'. The summary also mentions that these new processes have made big improvements in several OSM-to-Wikipedia comparison metrics as compared to equivalent numbers from 2013. A section titled 'Improved Numbers' provides context, stating that the number of Wikipedia articles in the top 40 languages in 2013 was 80,007,141, and in 2019 it was 142,620,084, an increase of ~78%. It further explains that 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%. The summary concludes by noting that 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. A final section titled 'Future Work' states that although the project technically concludes today, there are obviously always areas of future work where more gains can be made. These include:

The **Name Suggestion Index** uses Wikidata to provide brand identity and improved tagging in iD and Vespucci.

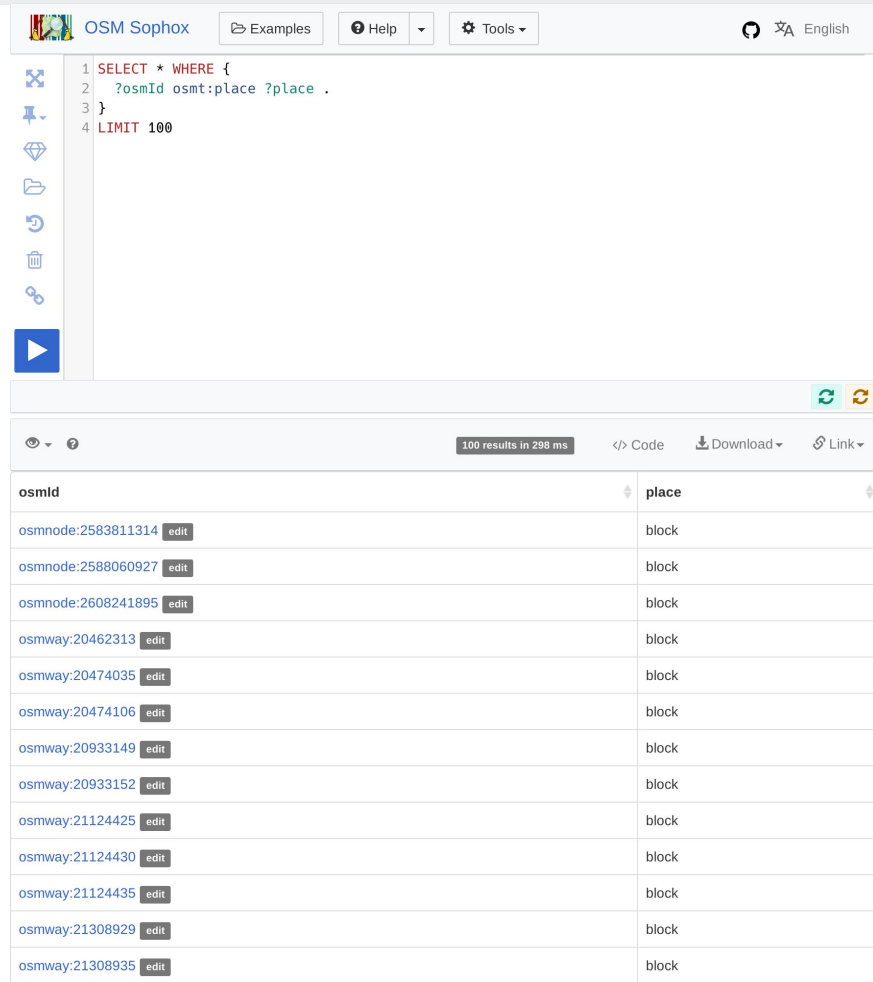
<https://github.com/osmlab/name-suggestion-index>



Yurik Astrakhan (OSM: nyuriks) created Sophox, a SPARQL endpoint for OSM. 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 endpoint interface. The top navigation bar includes the OSM Sophox logo, an 'Examples' button, a 'Help' dropdown menu, and a 'Tools' dropdown menu. The right side of the header shows a language selector set to 'English'.

The main area contains a SPARQL query editor with the following code:

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

Below the editor is a toolbar with icons for various actions like copy, paste, undo, redo, and a play button. The results section shows a table with 100 results in 298 ms. The table has two columns: 'osmid' and 'place'. Each row includes an 'edit' button next to the 'osmid' value.

osmid	place
osmnode:2583811314 edit	block
osmnode:2588060927 edit	block
osmnode:2608241895 edit	block
osmway:20462313 edit	block
osmway:20474035 edit	block
osmway:20474106 edit	block
osmway:20933149 edit	block
osmway:20933152 edit	block
osmway:21124425 edit	block
osmway:21124430 edit	block
osmway:21124435 edit	block
osmway:21308929 edit	block
osmway:21308935 edit	block

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

highway=motorway (Q4980)

🌐

High capacity highways designed to safely carry fast motor traffic.



☰ Contents ▾

Statements

instance of

🌐 [tag](#)

0 references

use on relations

🌐 [is prohibited](#)

0 references

permanent tag ID

🌐 [highway=motorway](#)

0 references

group

🌐 [highways](#)

0 references

key for this tag

🌐 [highway](#)

0 references

Wikidata concept

🌐 [Q46622](#)

0 references

image



[A4-passante di mestre dd.png](#)

image caption Αυτοκινητόδρομος (Greek)

0 references

implies

🌐 [surface=paved](#)

0 references

🌐 [oneway=yes](#)

0 references

🌐 [motor_vehicle=yes](#)

0 references

🌐 [hgv=yes](#)

0 references

🌐 [motorcar=yes](#)

CHAPTER 3

OSM Wikidata Matcher

(see second part of the presentation)