Introducción al Mapeado Colaborativo con OpenStreetMap

**Zaragoza Activa – La Azucarera
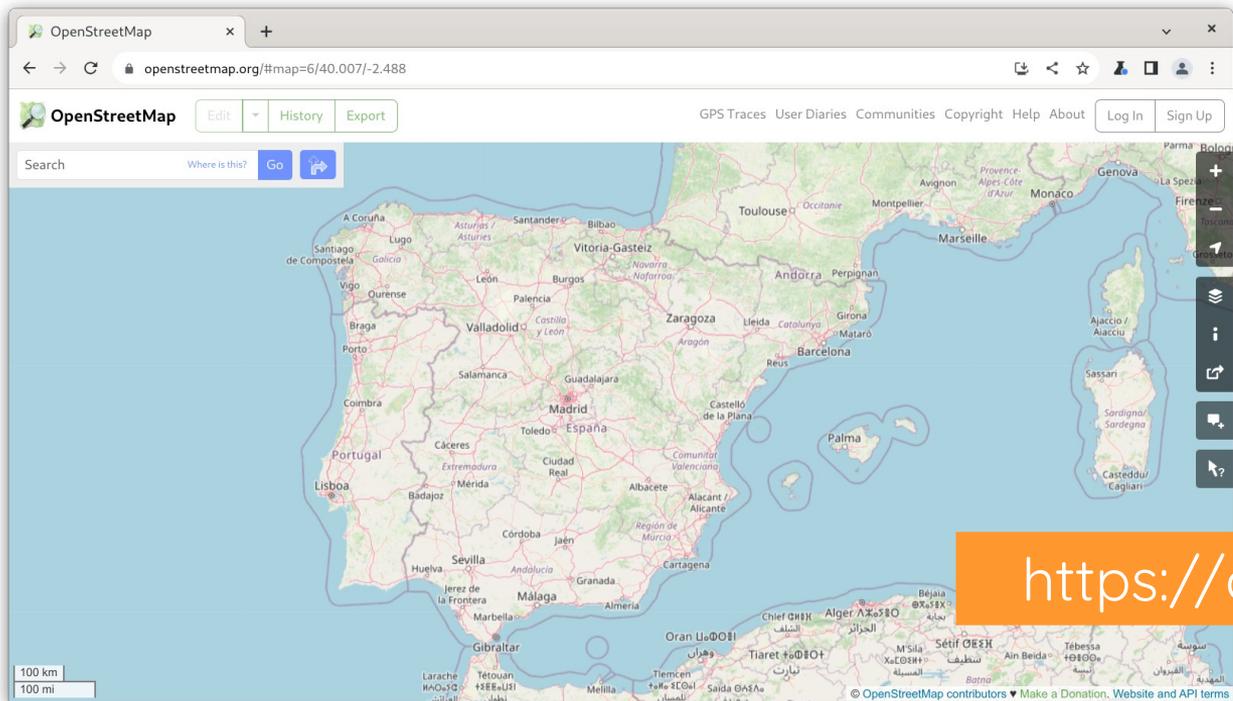2 de abril de 2024 / 18:30 a 20:30**

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OpenStreetMap

la wikipedia de los mapas

https://openstreetmap.org

OpenStreetMap

la wikipedia de los mapas

"crear y distribuir datos geográficos libres de restricciones técnicas o legales de uso, promoviendo su utilización de forma creativa, productiva o inesperada"

... a partir de la contribución voluntaria y colaborativa de la comunidad

¿Qué es OpenStreetMap?

- comunidad de **entusiastas** del software y los datos libres

- proyecto para crear **la mejor base de datos geográfica mundial**

- ¿un mapa en la red? ¡No! ¡**son muchos mapas**!

- **no solo mapas**: ecosistema de productos y servicios

OpenStreetMap
la wikipedia de los mapas

- ~ 10.5 millones editores
- ~ 150 activos/día en España
- ~ 9.000 millones de nodos
- > 35.000 creados/día en España

- Base de datos espacial de libre uso y distribución (OdbL)

Datos: osmstats.neis-one.org

Leyenda (mapnik)

Leyenda del mapa ✕

Autopista	
Main road	
Pista	
Vía ecuestre	
Bicisenda	
Vía peatonal	
Ferrocarril	
Metro	
Metro ligero y Tranvía	
Telecabina y Telesilla	
Pista de aeropuerto y Calle de rodaje	

Rampa aeroportuaria y terminal

Límites administrativos

Bosque

Madera

Campo de golf

Parque

Zona residencial

Común y pradera

Zona de comercios

Zona industrial

Zona de oficinas

Landa, brezal

Lago y embalse

Campiña

Baldío

Cementerio

Huertos de ocio

Campo de juego

Centro deportivo

Reserva natural

Área militar

Escuela y universidad

Edificio significativo

Estación de tren

Cumbre y pico

Borde a rayas = túnel

Borde negro = puente

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Mapping technologies

Why the world needs OpenStreetMap

As more private companies offer us maps, we need an open-source, editable solution - a cartographical Wikipedia

Serge Wroclawski

Tue 14 Jan 2014 11.52 GMT

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relevancia de OpenStreetMap

- alternativa a servicios de mapas online
- uso fundamental en áreas de ayuda humanitaria
- cartografía de **información geográfica alternativa**
- incorporación "open data" espacial
- plataforma de referencia de información geográfica libre

OpenStreetMap

Google Maps
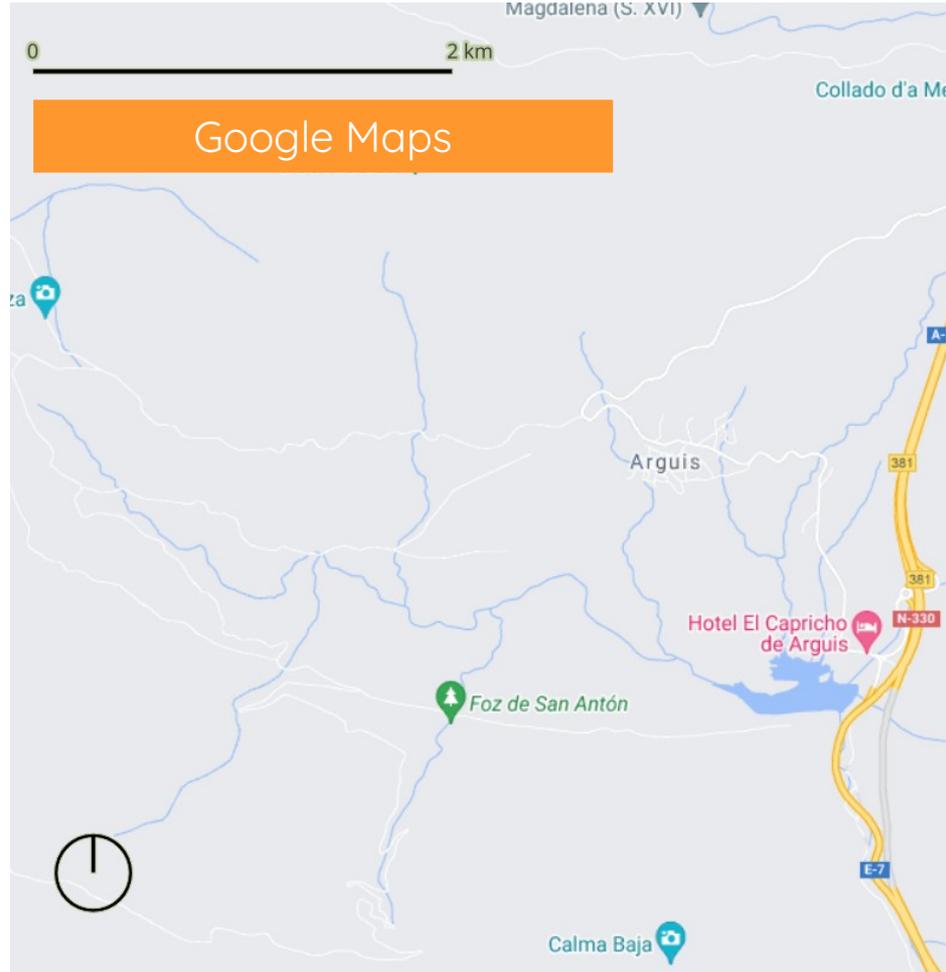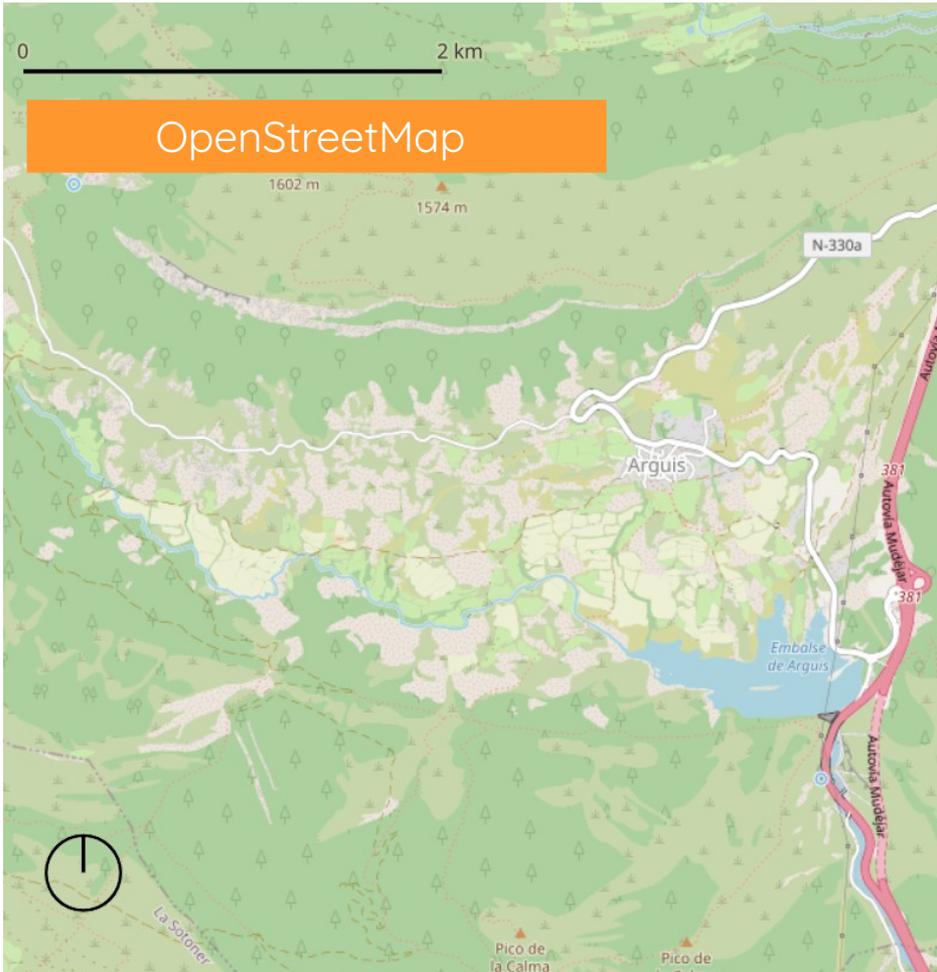
Our contributors

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For further details of these, and other sources that have been used to help improve OpenStreetMap, please see the Contributors page on the OpenStreetMap Wiki.

Inclusion of data in OpenStreetMap does not imply that the original data provider endorses OpenStreetMap, provides any warranty, or accepts any

Y más colaboraciones
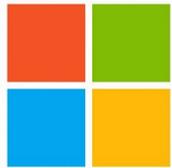
Empresas como **Amazon**, **Facebook**, **Microsoft** o **TomTom** están editando para mejorar la calidad de los datos espaciales de OSM para **su beneficio**.

https://wiki.osm.org/wiki/Category:Organised_Editing_Teams
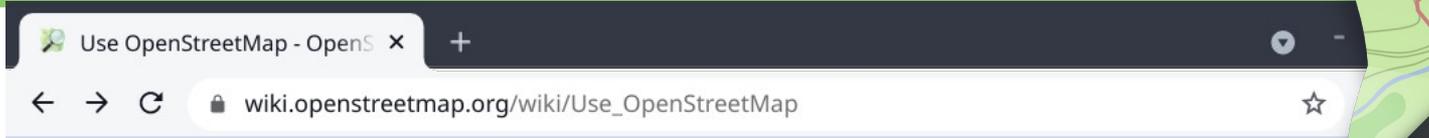
Licencia ODBL

OPEN DATA

- *Open Data Commons Open Database License*

- eres libre de: **copiar**, **distribuir**, **usar** (producir trabajados), **modificar** y **transformar** la base de datos

- siempre y cuando: **cites** convenientemente la fuente y el trabajos obtenido **se distribuya con una licencia similar** y de **forma abierta** (sin restricciones)

http://opendatacommons.org/licenses/odbl/summary/

Ecosistema de aplicaciones muy extenso y diverso

Use OpenStreetMap - OpenS... ×   +

← → C   🔒 wiki.openstreetmap.org/wiki/Use_OpenStreetMap   ☆

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Use OpenStreetMap

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Other languages · Translate	

Find out about how you can benefit from the OpenStreetMap project!

Getting started

• Read our introduction: Using OpenStreetMap

🌐 **Get Data**

▶ **Applications of OpenStreetMap**

• Browsing our world map⌖

• Ready-to-use applications

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

Lo mejor de OpenStreetMap es su Comunidad llena de entusiastas

Y tú también puedes ser parte de ella

Procedimiento a seguir

- **Unirse** a la comunidad
    - tener usuario en OpenStreetMap

- **Recoger** los datos

- **Subir** los datos a OSM

- **Generar** mapas
    - OSM.org, otras plataformas, hacerlo tú mismo

Mapping parties
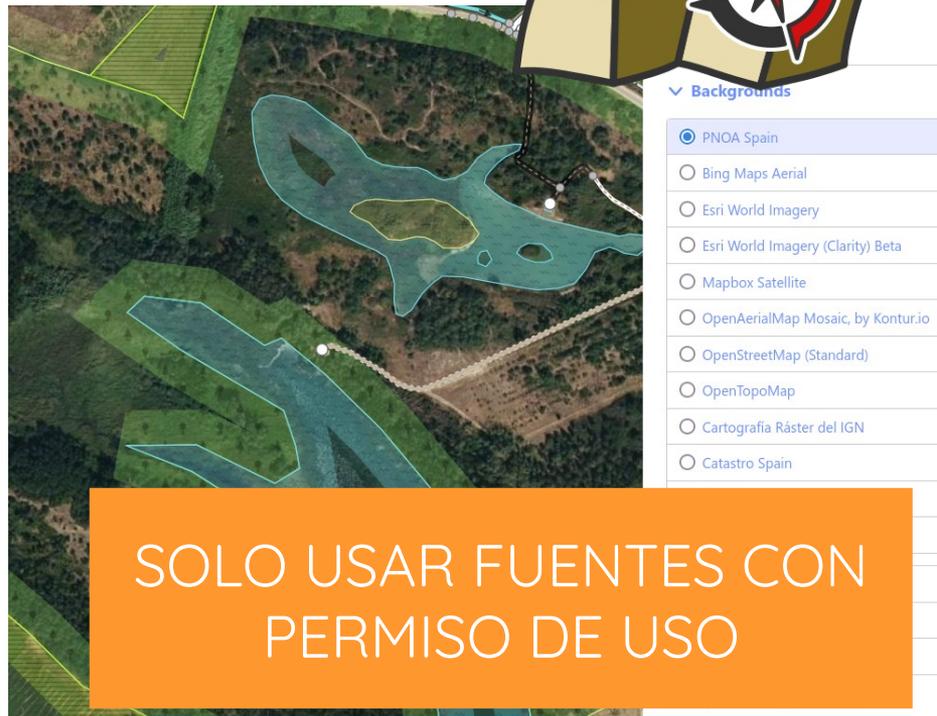
ZGZ

Barrio Las Fuentes, Zaragoza

Image: Aragón TV

Trabajo sobre el terreno

Recursos online

- Recursos IGN/CNIG
  - Ortofotografía
  - Mapas topográficos
- Catastro
- Imágenes de satélite
  - Maxtar, BING y otras

ZGZ

Backgrounds

- ● PNOA Spain
- ○ Bing Maps Aerial
- ○ Esri World Imagery
- ○ Esri World Imagery (Clarity) Beta
- ○ Mapbox Satellite
- ○ OpenAerialMap Mosaic, by Kontur.io
- ○ OpenStreetMap (Standard)
- ○ OpenTopoMap
- ○ Cartografía Ráster del IGN
- ○ Catastro Spain

SOLO USAR FUENTES CON PERMISO DE USO

Subida de datos a OSM

ZGZ
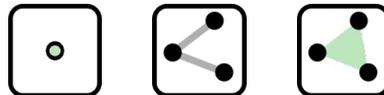
Mapatones
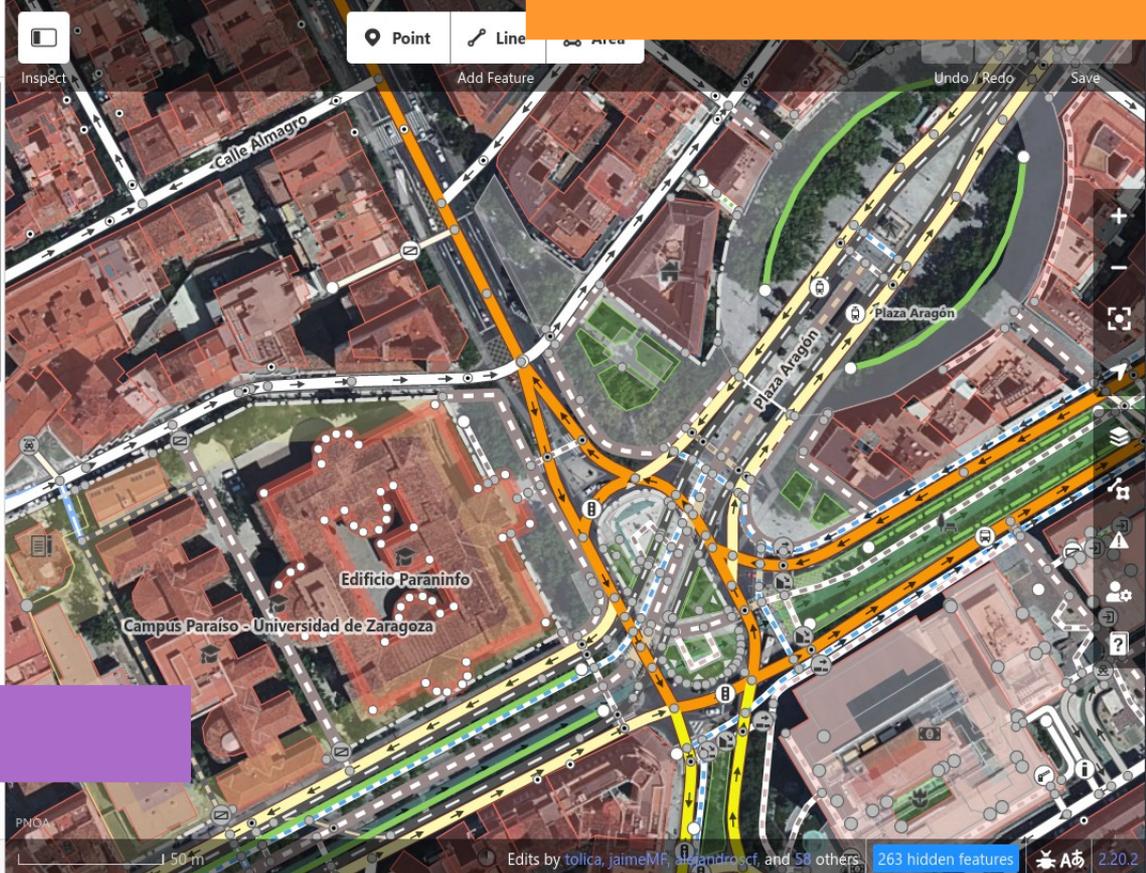
editor JOSM

editor externo Java

Modelo datos geográficos

a. componente espacial

tipologías básicas

- ○ nodos / nodes
- ○ líneas / ways

b. componente temático

etiquetas y valores

- ○ shop=bakery
- ○ name=Panadería Alonso

c. relaciones y conjuntos

k=v

¿dónde?
¿qué forma?
¿qué es?
¿cómo se relaciona?

wiki.openstreetmap.org/wiki/Main_Page

Wiki.OpenStreetMap.org

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Main Page - Other languages

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Afrikaans   asturianu   azərbaycanca   Bahasa Indonesia   Bahasa Melayu   bosanski   brezhoneg   català   čeština   dansk   Deutsch   eesti   **English**   español   Esperanto   euskara   français   Frysk   galego   hrvatski   interlingua   íslenska   italiano   kréyòl gwadloupéyen   kurdî   latviešu   Lëtzebuergesch   lietuvių   magyar   Nederlands   norsk   occitan   polski   português   română   shqip   slovenčina   slovenščina   srpski (latinica)   suomi   svenska   Tiếng Việt   Türkçe   Zazaki   Ελληνικά   български   македонски   русский   српски / srpski   українська   հայերեն   עברית   العربية   فارسی   ਪੰਜਾਬੀ   پنجابی   پښتو   سرائیکی   नेपाली   मराठी   বাংলা   සිංහල   ไทย   မြန်မာဘာသာ   ქართული   한국어   中文 (简体)   中文 (繁體)   日本語

Other languages...

Welcome to OpenStreetMap, *the project that creates and distributes* free ⧉ *geographic data for the world. We started it because most maps you think of as free actually have legal or technical restrictions on their use, holding back people from using them in creative, productive, or unexpected ways.*

More about OpenStreetMap | **How to contribute** | **Where to get help**

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

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

Use OpenStreetMap	**Contribute free map data**	**Software Development**
Using OpenStreetMap	Beginners' Guide	Develop and use the Platform
• Browse our world map ⧉	• Browse the map feature documentation	• Use OpenStreetMap for your software
• Check the ready-to-use products for your mobile device, your desktop computer or the	• Browse our Mapping projects	• Contribute to the OpenStreetMap software
	• ...**more on contributing map data**	

wiki.openstreetmap.org/wiki/Map_features

Map Features
Elementos del mapa

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

Tools

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

Map features

🏷 tagging ↗   ✉ tagging ↗

Map Features - Other languages	↻ Purge • Help
asturianu azərbaycanca Bahasa Indonesia bosanski català čeština dansk Deutsch eesti **English** español Esperanto français hrvatski íslenska italiano latviešu lietuvių magyar Nederlands norsk occitan polski português română shqip slovenčina slovenščina suomi svenska Tiếng Việt Türkçe Ελληνικά български македонски русский српски / srpski українська עברית العربية فارسی پنجابی नेपाली தமிழ் ဗမာစကား രമരാമാ 한국어 ქართული 中文 (简体) 中文 (繁體) 日本語	
Other languages...	

OpenStreetMap represents physical features on the ground (e.g., roads or buildings) using tags attached to its basic data structures (its nodes, ways, and relations). Each tag describes a geographic attribute of the feature being shown by that specific node, way or relation.

OpenStreetMap's free tagging system allows the map to include an unlimited number of attributes describing each feature. The community agrees on certain key and value combinations for the most commonly used tags, which act as informal standards. However, users can create new tags to improve the style of the map or to support analyses that rely on previously unmapped attributes of the features. Short descriptions of tags that relate to particular topics or interests can be found using the feature pages.

Most features can be described using only a small number of tags, such as a path with a classification tag such as `highway=footway`, and perhaps also a name using `name=*`. But, since this is a worldwide, inclusive map, there can be many different feature types in OpenStreetMap, almost all of them described by tags.

There are proposed changes to existing tags, inactive features and deprecated features. If you do not find a suitable tag in this list then feel free to make something suitable up as long as the tag values will be verifiable. Over time, you may find that the tag name is changed to fit with some wider consensus. However, many good tags were used first and documented later. For the latest updates of tagging schemes see Changelog.
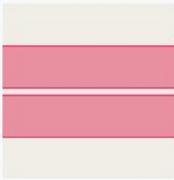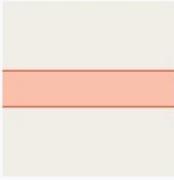
Contents [hide]

wiki.openstreetmap.org/wiki/Map_features#Highway

Etiqueta Highway
Red Viaria

Highway

This is used to describe roads and footpaths. For an introduction on its
access limitations by vehicles type, time, day, load and purpose, etc.

Key	Value	Element	Comment	Rendering carto	Examples
Roads					
These are the principal tags for the road network. They range from the most to least important.					
highway	motorway	⬚	A restricted access major divided highway, normally with 2 or more running lanes plus emergency hard shoulder. Equivalent to the Freeway, Autobahn, etc..		
highway	trunk	⬚	The most important roads in a country's system that aren't motorways. (Need not necessarily be a divided highway.)		
highway	primary	⬚	The next most important roads in a country's system. (Often link larger towns.)		

RECUERDA

No copies de otros mapas

Editando en iD

- Seguir el tutorial

openstreetmap.org/edit#map=16/41.7616/-0.7916

OpenStreetMap Edit ▾ History Export

GPS Traces User Diaries Communities Copyright Help About msevilla00 ▾

Search features

🔍 Search

Undo / Redo   Save

Start mapping!

Camino Farlete

Acequia de Cañarera

300 m   Edits by msevilla00, sidvicio, jgngarcia, and 25 others   434 hidden features   A あ   2.28.1

Help

Notes

Background Imagery

Street Level Photos

GPS Traces

Quality Assurance

Keyboard Shortcuts

street level photos. Copying from commercial sources, like Google Maps, is strictly forbidden.

Before you start

You should be familiar with OpenStreetMap and this editor before you start editing. iD contains a walkthrough to teach you the basics of editing OpenStreetMap. Press the "Start the Walkthrough" button on this screen to start the tutorial—it takes only about 15 minutes.

Start the Walkthrough

Open Source

The iD editor is a collaborative open source

Consejos

- Ante la duda no lo toques
- No edites para el render
- Comenta tus ediciones
- Algunas líneas comparten nodos otras NO
- Consulta la documentación
- Pregunta a la comunidad

La comunidad está llena de entusiastas listos para prestar ayuda

Busca ayuda

- ## Foro de la comunidad
  https://community.openstreetmap.org/c/communities/es/51

- ## Lista de correo
  https://lists.openstreetmap.org/listinfo/talk-es

- ## Mensajería instantánea
  Telegram y Matrix

- ## Grupos locales OSM / Geoinquietos

https://wiki.openstreetmap.org/wiki/ES:Espa%C3%B1a#Contacto

Introducción al Mapeado Colaborativo con OpenStreetMap

Presentación con materiales CC BY-SA del grupo Mapeado Colaborativo / Geoinquietos Zaragoza y la Comunidad de OpenStreetMap elaborados por Miguel Sevilla-Callejo, Héctor Ochoa Ortiz, Jorge Sanz Sanfructuoso, Xurxo Sanz, Alejandro Suárez, Jaime Crespo y Carlos Cámara

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