



# OpenStreetMap Italia



Enabling VGI creation, management and sharing

April the 16th, 2018

AREA della Ricerca CNR

Via Alfonso Corti 12 , 20133 MILANO

## OpenStreetMap Project

# Wikimedia Italia

<http://www.wikimedia.it/>

, Associazione di Promozione Sociale), is the italian chapter of the no-profit



Free information and culture for humankind



# [www.openstreetmap.org](http://www.openstreetmap.org)

Wikimedia Italia since 2016 is also the italian chapter of the no-profit OpenStreetMap Foundation.

The project that creates and distributes free geographic data for the world

OpenStreetMap:  
*The free wiki map of the world*





# www.openstreetmap.org

Born in 2004 has a philosophy very similar to Wikipedia

OpenStreetMap is a free editable map of the world, but mainly is  
**a free geographic database**

Data are available under the Open Database Licence  
*<https://opendatacommons.org/licenses/odbl/>*

Maps from openstreetmap.org have a CC BY-SA license  
Creative Commons Attribution-ShareAlike 2.0

You can use OpenStreetMap for business too



# Some boring license paragraph about licenses

OpenStreetMap® is open data

...distribute, transmit and adapt our data, as long as you credit OpenStreetMap  
...ter or build upon our data, you may distribute the result only under the same  
...d our documentation, are licensed under the Creative Commons Attribution-

How to credit OpenStreetMap

We require that you use the credit “© OpenStreetMap contributors”.

Please please, do attribute OpenStreetMap

*<https://www.openstreetmap.org/copyright/>*

# Where the data come from

## **From the crowd**

Every registered user has the same rights to create, modify, sometimes delete objects (no admin or moderator).

Most of them (us) neither have professional tools nor particular skills.

## **Data import from compatible databases**

But you have be careful at: license issues, old data, conflate with existing data

u must to: document, discuss and agree the import with local and global com



# How the data are produced/derived

- standard grade gps
- app (with or without gps aid)
- photos
- observation on the field (Fieldpapers)
- Mapillary/OpenStreetCam
- local knowledge
- aerial and satellite imagery

Often not by a simple measure/technique.  
And we use an *wiki-approach* heuristic approach

The background of the slide is a dark, textured world map. The continents are rendered in a dark brown or olive green color, while the oceans are a deep navy blue. The map has a slightly grainy, artistic feel.

# How data are organized

Thousands category?  
How many hundreds of layer are need?



The background of the slide is a dark, textured world map. The continents are rendered in a dark brown or olive green color, while the oceans are a deep navy blue. The map has a slightly grainy, artistic feel.

# How data are organized

Thousands category?  
How many hundreds of layer are need?

**No layer at all !!**

# How data are organized

OpenStreetMap was designed to be simple

The basic components are:

- nodes (defining points in space)
- ways (defining linear features and area boundaries)
- relations (which are sometimes used to explain how other

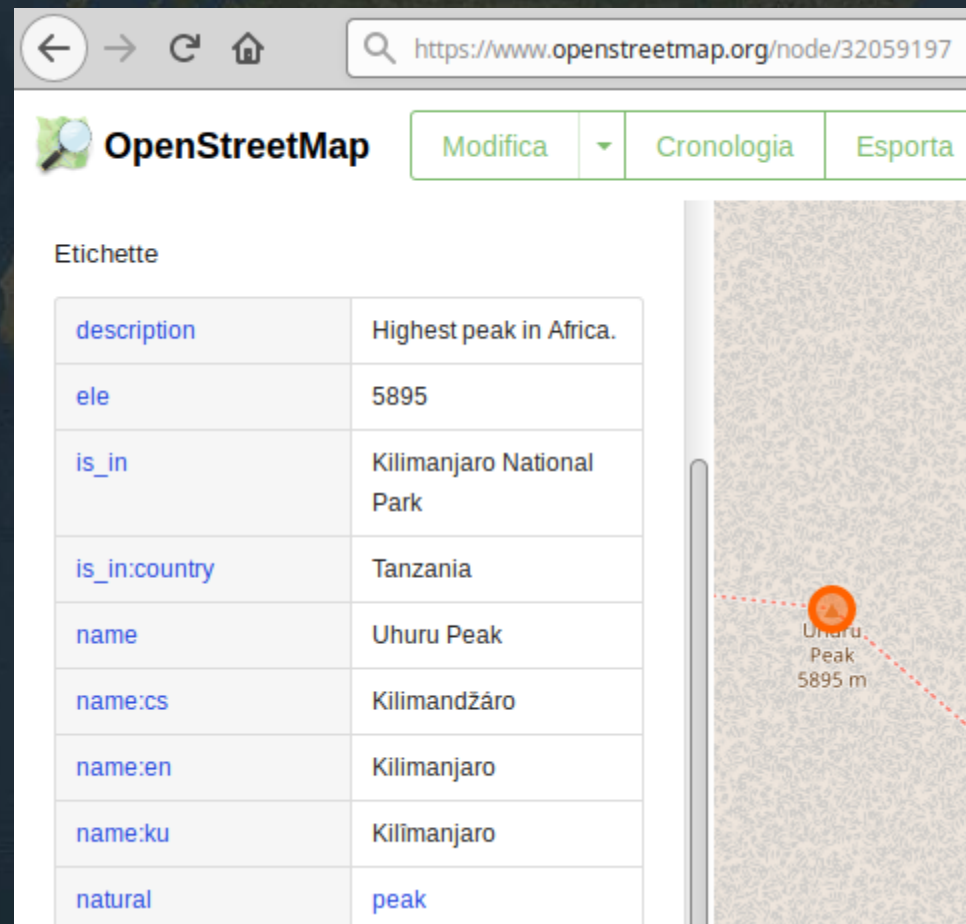
No polygons, no areas

have one or more associated tags (which describe the meaning of



# OpenStreetMap elements: node

**Node:** a tree, a fire\_hydrant, a peak, ... is identified with a node with, at very least, one label (tag)



The screenshot shows the OpenStreetMap interface for a specific node. The browser address bar displays the URL <https://www.openstreetmap.org/node/32059197>. The OpenStreetMap logo is visible, along with navigation buttons: 'Modifica', 'Cronologia', and 'Esporta'. Below the navigation bar, the 'Etichette' (Tags) section is displayed as a table. To the right of the table is a map snippet showing the location of the node, marked with an orange dot and labeled 'Uhuru Peak 5895 m'.

Etichette	
description	Highest peak in Africa.
ele	5895
is_in	Kilimanjaro National Park
is_in:country	Tanzania
name	Uhuru Peak
name:cs	Kilimandžáro
name:en	Kilimanjaro
name:ku	Kilimanjaro
natural	peak

A node is a node is a node

## Polygons are created just closing a way

OpenStreetMap

Cerca

Percorso: **Via della Fonte di Fauno**   
**(24404016)**

details

Modificato oltre 4 anni fa da **Daviak**  
Versione #11 - Gruppo di modifiche **#17472267**

Etichette

highway	residential
lanes	1
lit	yes
name	Via della Fonte di Fauno
oneway	yes

Nodi

- 264896594 (parte del percorso — Via delle Terme Deciane (22908255))
- 1753953753
- 246641939 (parte del percorso — Via Licinia (22908268))

### Percorso: Torre Eiffel (5013364) ✕

Updated a attraction

Modificato 3 giorni fa da celloc

Versione #92 · Gruppo di modifiche #38847391

Tag

architect	Stephen Sauvestre;Gustave Eiffel;Maurice Koechlin;Émile Nouguier
building	yes
building:colour	#706550



# relation

Relations act as data containers

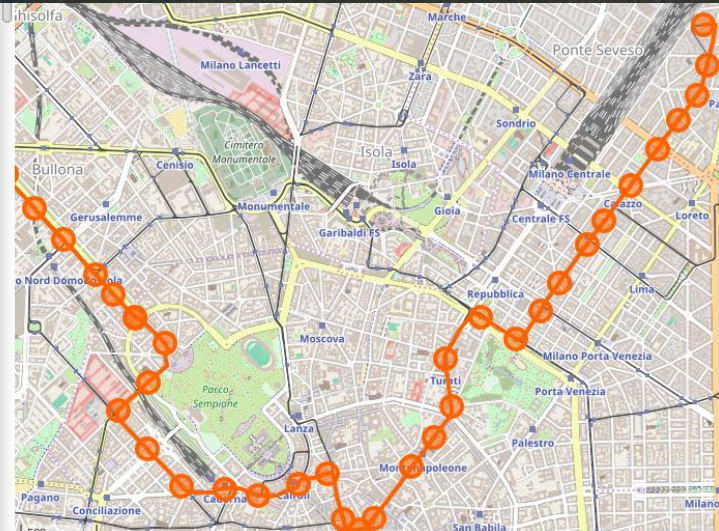
Tramway line

Tag

comment	<a href="http://wiki.openstreetmap.org/wiki/Milano/Trasporti_pubblici">http://wiki.openstreetmap.org/wiki/Milano/Trasporti_pubblici</a>
fixme	most stops are missing
from	Piazza Castelli
name	1 Greco
network	SITAM
operator	ATM
ref	1
route	tram
to	Greco Rovereto
type	route

Membri

- Percorso 134669655 come forward
- Percorso 55287863 come forward
- Percorso 274785390 come forward




Long footpath

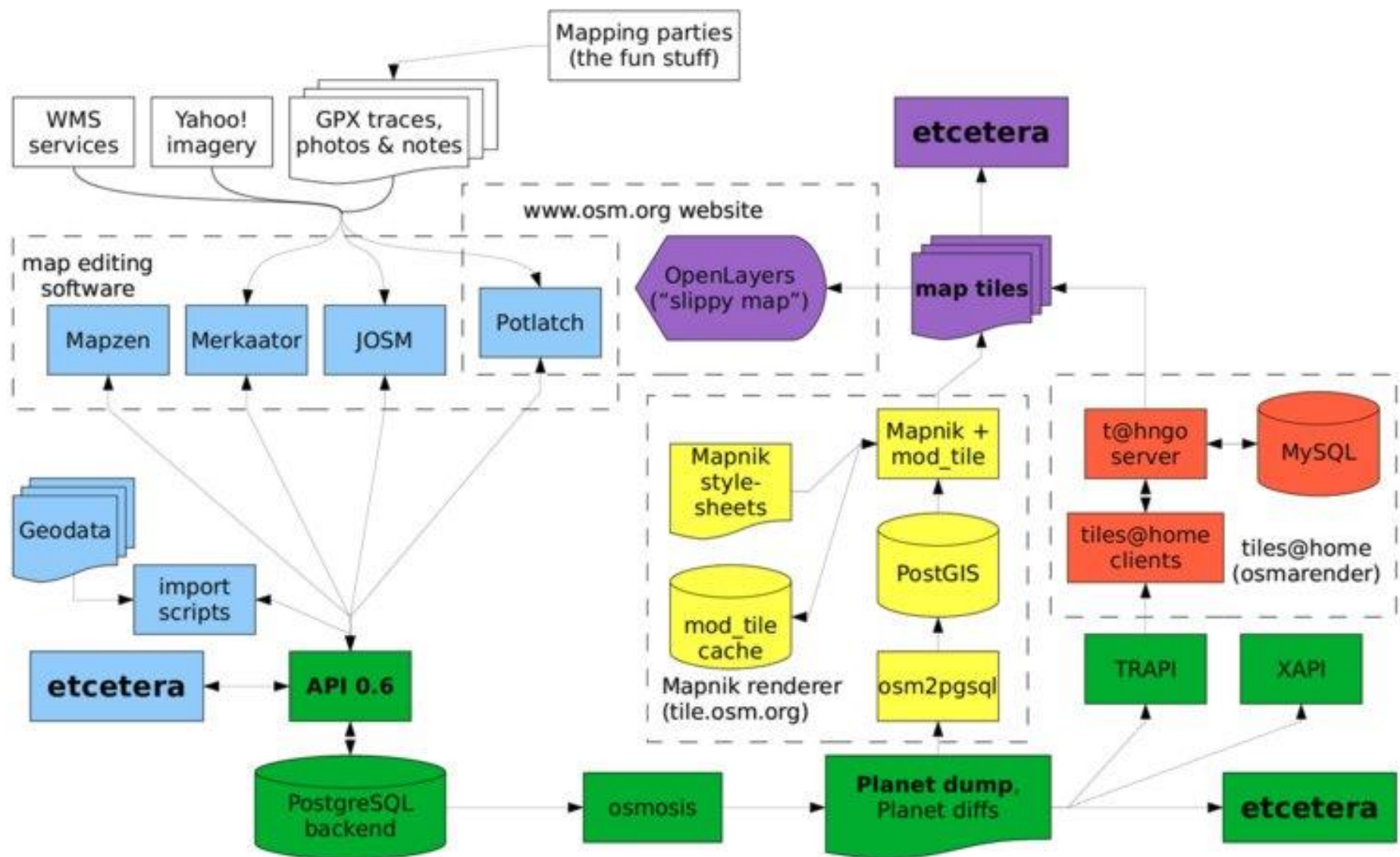
→ ↺ ↻ ↵ 🔍 <https://www.openstreetmap.org/relation/1411001>

OpenStreetMap Modifica Cronologia Esporta Tracciati GPS Diari degli utenti Copyright

cai_scale	E
description:it	Il Giovo - Prato Rotondo
from	Giovo del Sassello
name	Alta Via dei Monti Liguri - Tappa 19
name:de	Ligurische Grenzkammstraße
name:en	High Way of the Ligurian Mountains - stage 19
network	lwn



# OpenStreetMap infrastructure





# TAGS

Tags are identified by a key and a value

e.g.: a restaurant is (at least)

amenity=restaurant

Here the list with the officially acknowledged tags

*[https://wiki.openstreetmap.org/wiki/Map\\_Features](https://wiki.openstreetmap.org/wiki/Map_Features)*

How much a key is used? *<https://taginfo.openstreetmap.org/>*

# Wiki approach

also do a very basic mapping, later other users can improve, integrate, o

**Percorso: Strada sopraelevata Aldo Moro (8162520)** ✕

aggiunti diversi short\_name alle vie

Modificato 8 giorni fa da [Ale\\_Zena\\_IT](#)

Versione #49 · Gruppo di modifiche #57855290

**Etichette**

bicycle	no
bridge	viaduct
foot	no
highway	trunk
is_in:city	Genova
lanes	2
layer	2
lit	yes
maxspeed	60
maxweight	2.5
name	Strada sopraelevata Aldo Moro
oneway	yes
short_name	sopraelevata
wikidata	<a href="#">Q2303088</a>
wikipedia	<a href="#">it:Strada sopraelevata di Genova</a>

Ver	A	B	Data	Utente
1	<input checked="" type="radio"/>	<input type="radio"/>	09/09/07 0.58	mikelima
2	<input type="radio"/>	<input type="radio"/>	18/11/07 18.46	mikelima
3	<input type="radio"/>	<input type="radio"/>	23/11/07 0.15	mikelima
4	<input type="radio"/>	<input type="radio"/>	23/11/07 0.16	mikelima
5	<input type="radio"/>	<input type="radio"/>	15/12/07 23.29	Thomas Matern
6	<input type="radio"/>	<input type="radio"/>	02/01/08 21.37	mikelima
7	<input type="radio"/>	<input type="radio"/>	02/03/08 19.16	steko
8	<input type="radio"/>	<input type="radio"/>	18/03/08 22.44	Ale_Zena_IT
9	<input type="radio"/>	<input type="radio"/>	01/04/08 20.17	Ale_Zena_IT
10	<input type="radio"/>	<input type="radio"/>	01/04/08 20.18	Ale_Zena_IT
11	<input type="radio"/>	<input type="radio"/>	19/04/08 16.59	mikelima
12	<input type="radio"/>	<input type="radio"/>	19/04/08 17.00	mikelima
13	<input type="radio"/>	<input type="radio"/>	19/04/08 17.01	mikelima
14	<input type="radio"/>	<input type="radio"/>	19/04/08 17.01	mikelima
15	<input type="radio"/>	<input type="radio"/>	19/04/08 20.24	Ale_Zena_IT
16	<input type="radio"/>	<input type="radio"/>	28/04/08 0.45	Ale_Zena_IT
17	<input type="radio"/>	<input type="radio"/>	28/04/08 0.47	Ale_Zena_IT
18	<input type="radio"/>	<input type="radio"/>	07/05/08 17.27	Ale_Zena_IT
19	<input type="radio"/>	<input type="radio"/>	09/05/08 0.57	mikelima
20	<input type="radio"/>	<input type="radio"/>	09/05/08 0.59	mikelima
21	<input type="radio"/>	<input type="radio"/>	10/05/08 0.29	mikelima
22	<input type="radio"/>	<input type="radio"/>	10/05/08 0.30	mikelima
23	<input type="radio"/>	<input type="radio"/>	12/05/08 21.32	mikelima
24	<input type="radio"/>	<input type="radio"/>	14/05/08 21.31	mikelima
25	<input type="radio"/>	<input type="radio"/>	14/05/08 21.31	mikelima
26	<input type="radio"/>	<input type="radio"/>	14/05/08 21.32	mikelima
27	<input type="radio"/>	<input type="radio"/>	14/05/08 21.32	mikelima
28	<input type="radio"/>	<input type="radio"/>	14/05/08 23.40	mikelima
29	<input type="radio"/>	<input type="radio"/>	14/05/08 23.40	mikelima
30	<input type="radio"/>	<input type="radio"/>	14/05/08 23.41	mikelima
31	<input type="radio"/>	<input type="radio"/>	14/05/08 23.41	mikelima
32	<input type="radio"/>	<input type="radio"/>	14/05/08 23.42	mikelima
33	<input type="radio"/>	<input type="radio"/>	28/06/08 2.08	mikelima
34	<input type="radio"/>	<input type="radio"/>	07/09/08 1.55	Ale_Zena_IT
35	<input type="radio"/>	<input type="radio"/>	07/09/08 1.59	Ale_Zena_IT
36	<input type="radio"/>	<input type="radio"/>	07/09/08 13.56	mikelima
37	<input type="radio"/>	<input type="radio"/>	12/09/08 0.08	mikelima
38	<input type="radio"/>	<input type="radio"/>	23/06/09 12.18	Basstoelpel
39	<input type="radio"/>	<input type="radio"/>	23/10/10 19.01	mikelima
40	<input type="radio"/>	<input type="radio"/>	17/03/11 12.38	mikelima
41	<input type="radio"/>	<input type="radio"/>	29/05/11 20.06	noperante
42	<input type="radio"/>	<input type="radio"/>	15/09/14 22.11	MrWebber
43	<input type="radio"/>	<input type="radio"/>	26/04/15 21.57	sabas88

**Etichette** **Nodi**

Versione 1 creata il 09/09/07 0.58  
Utente: [mikelima](#)  
Gruppo di modif... 400952

Versione 49 creata il 06/04/18 8.31  
Utente: [Ale\\_Zena\\_IT](#)  
Gruppo di modif... 57855290

aggiunti diversi short\_name alle vie  
Fonte: knowledge

Chiave	Valore	Chiave	Valore
		bicycle	no
		bridge	viaduct
created_by	Potlatch alpha	foot	no
highway	motorway	highway	trunk
		is_in:city	Genova
		lanes	2
layer	1	layer	2
		lit	yes
		maxspeed	60
		maxweight	2.5
		name	Strada sopraelev...
oneway	1	oneway	yes
		short_name	sopraelevata
		wikidata	<a href="#">Q2303088</a>
		wikipedia	<a href="#">it:Strada soprael...</a>



# OpenStreetMap (OSM) is resilient

OSM database keep the whole history.

If a mistake or a deletion occur you can 'revert

Ver	A	B	Data	Utente	Editor
1	<input type="radio"/>	<input type="radio"/>	09/09/07 0.58	mikelima	
2	<input type="radio"/>	<input type="radio"/>	18/11/07 18.46	mikelima	
3	<input type="radio"/>	<input type="radio"/>	23/11/07 0.15	mikelima	
4	<input type="radio"/>	<input type="radio"/>	23/11/07 0.16	mikelima	
5	<input type="radio"/>	<input type="radio"/>	15/12/07 23.29	Thomas Matern	
6	<input type="radio"/>	<input type="radio"/>	02/01/08 21.37	mikelima	
7	<input type="radio"/>	<input type="radio"/>	02/03/08 19.16	steko	
8	<input type="radio"/>	<input type="radio"/>	18/03/08 22.44	Ale_Zena_IT	
9	<input type="radio"/>	<input type="radio"/>	01/04/08 20.17	Ale_Zena_IT	
10	<input type="radio"/>	<input type="radio"/>	01/04/08 20.18	Ale_Zena_IT	
11	<input type="radio"/>	<input type="radio"/>	19/04/08 16.59	mikelima	
12	<input type="radio"/>	<input type="radio"/>	19/04/08 17.00	mikelima	
13	<input type="radio"/>	<input type="radio"/>	19/04/08 17.01	mikelima	
14	<input type="radio"/>	<input type="radio"/>	19/04/08 17.01	mikelima	
15	<input type="radio"/>	<input type="radio"/>	19/04/08 20.24	Ale_Zena_IT	
16	<input type="radio"/>	<input type="radio"/>	28/04/08 0.45	Ale_Zena_IT	
17	<input type="radio"/>	<input type="radio"/>	28/04/08 0.47	Ale_Zena_IT	
18	<input type="radio"/>	<input type="radio"/>	07/05/08 17.27	Ale_Zena_IT	
19	<input type="radio"/>	<input type="radio"/>	09/05/08 0.57	mikelima	
20	<input type="radio"/>	<input type="radio"/>	09/05/08 0.59	mikelima	
21	<input type="radio"/>	<input type="radio"/>	10/05/08 0.29	mikelima	
22	<input type="radio"/>	<input type="radio"/>	10/05/08 0.30	mikelima	
23	<input type="radio"/>	<input type="radio"/>	12/05/08 21.32	mikelima	
24	<input type="radio"/>	<input type="radio"/>	14/05/08 21.31	mikelima	
25	<input type="radio"/>	<input type="radio"/>	14/05/08 21.31	mikelima	
26	<input type="radio"/>	<input type="radio"/>	14/05/08 21.32	mikelima	
27	<input type="radio"/>	<input type="radio"/>	14/05/08 21.32	mikelima	
28	<input type="radio"/>	<input type="radio"/>	14/05/08 23.40	mikelima	
29	<input type="radio"/>	<input type="radio"/>	14/05/08 23.40	mikelima	
30	<input type="radio"/>	<input type="radio"/>	14/05/08 23.41	mikelima	
31	<input type="radio"/>	<input type="radio"/>	14/05/08 23.41	mikelima	
32	<input type="radio"/>	<input type="radio"/>	14/05/08 23.42	mikelima	
33	<input type="radio"/>	<input type="radio"/>	28/06/08 2.08	mikelima	
34	<input type="radio"/>	<input type="radio"/>	07/09/08 1.55	Ale_Zena_IT	
35	<input type="radio"/>	<input type="radio"/>	07/09/08 1.59	Ale_Zena_IT	
36	<input type="radio"/>	<input type="radio"/>	07/09/08 13.56	mikelima	
37	<input type="radio"/>	<input type="radio"/>	12/09/08 0.08	mikelima	
38	<input type="radio"/>	<input type="radio"/>	23/06/09 12.18	Basstoelpel	JOSM/1.5 (1627 de)
39	<input type="radio"/>	<input type="radio"/>	23/10/10 19.01	mikelima	JOSM/1.5 (3592 en)
40	<input type="radio"/>	<input type="radio"/>	17/03/11 12.38	mikelima	JOSM/1.5 (3966 en)
41	<input type="radio"/>	<input type="radio"/>	29/05/11 20.06	noperante	JOSM/1.5 (4064 it)
42	<input type="radio"/>	<input type="radio"/>	15/09/14 22.11	MrWebber	Potlatch 2
43	<input type="radio"/>	<input type="radio"/>	26/04/15 21.57	sabas88	JOSM/1.5 (8159 en_GB)
44	<input type="radio"/>	<input type="radio"/>	14/06/15 0.16	mcheckimport	JOSM/1.5 (8488 it)
45	<input type="radio"/>	<input type="radio"/>	05/08/15 22.00	jeawrong	JOSM/1.5 (8491 it)
46	<input type="radio"/>	<input type="radio"/>	18/08/16 21.58	Ale_Zena_IT	JOSM/1.5 (10823 it)
47	<input type="radio"/>	<input type="radio"/>	13/11/16 16.10	sabas88	JOSM/1.5 (11223 en)
48	<input checked="" type="radio"/>	<input type="radio"/>	18/03/18 15.53	Ale_Zena_IT	JOSM/1.5 (13500 it)
49	<input checked="" type="radio"/>	<input type="radio"/>	06/04/18 8.31	Ale_Zena_IT	JOSM/1.5 (13584 it)

Who: user lcmortensen – when: 5 years ago  
what: analyze the changeset – how: with Potlatch editor

**Percorso: Camelot Street (13054100)** x

(nessun commento)

Modificato circa 5 anni fa da lcmortensen

Versione #5 · Gruppo di modifiche #15059894

Etichette

highway	residential
maxspeed	50
name	Camelot Street


Nodi

120123103 (parte del percorso — Wentworth Street (4830527))

120123752 (parte del percorso — Glenavon Place (13054127))


120123753

120123755

120123759 (parte del percorso  The Swamp (475688681))

120123761 (parte del percorso — St Clio Street (13054164))

Scarica XML · Visualizza cronologia



**Gruppo di modifiche: 15059894** x

(nessun commento)

Chiuso circa 5 anni fa da lcmortensen

Etichette

build	2.3-554-ge648197
created_by	Potlatch 2
version	2.3

Discussione

Accedi per unirti alla discussione

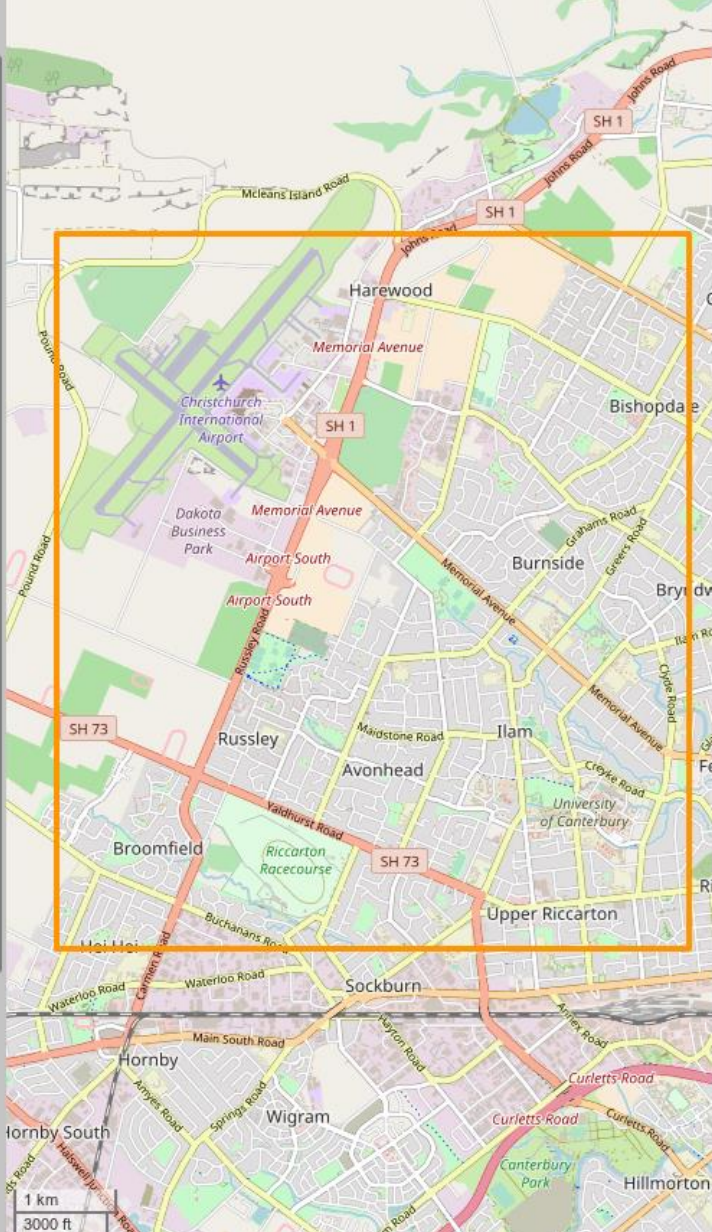
Percorsi (1-20 di 170)

1 2 3 ... 9

- Avonhead Road (205876189, v1)
- Avonhead Road (205876190, v1)
- Carruthers Street (13053971, v6)
- Juniper Place (5365797, v5)
- Longmuir Street (13053992, v6)
- Grangewood Lane (203964512, v2)
- Westmont Street (13520975, v3)
- Camelot Street (13054100, v5)
- O'Connor Place (5365919, v5)
- Glenavon Place (13054127, v7)
- St Clio Street (13054164, v6)
- Stableford Green (5365978, v7)
- Dalrye Place (13521098, v4)
- Montclare Avenue (13521051, v3)
- Melissa Place (110498100, v2)
- Parkstone Avenue (13521219, v4)
- Lodge Place (13521255, v4)
- Sledmere Street (5366213, v4)
- Charlott Street (5366214, v5)
- Risby Place (5366219, v5)

Relazioni (1)

Airport - City via Fendalton (1597641, v31)

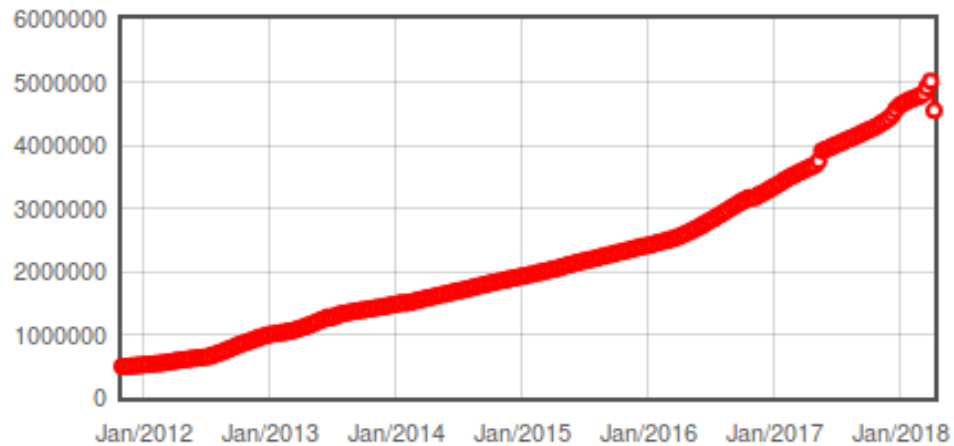




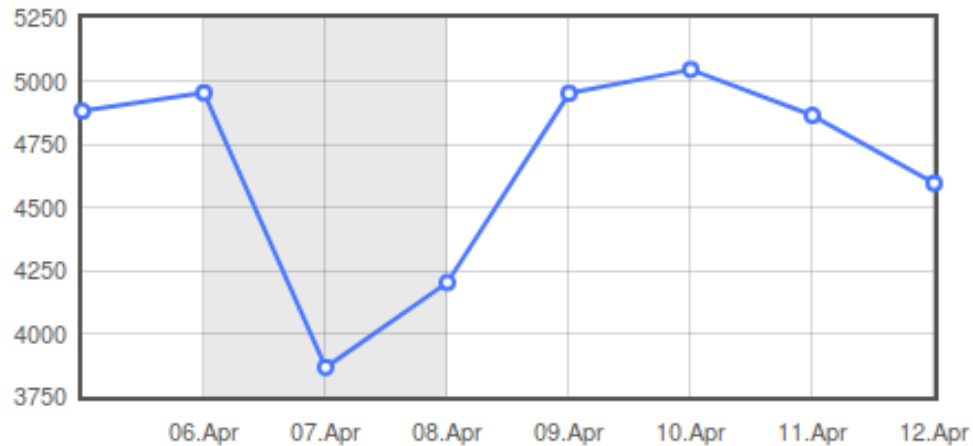
# How many contributors

Registered and active members

No. of registered OSM members

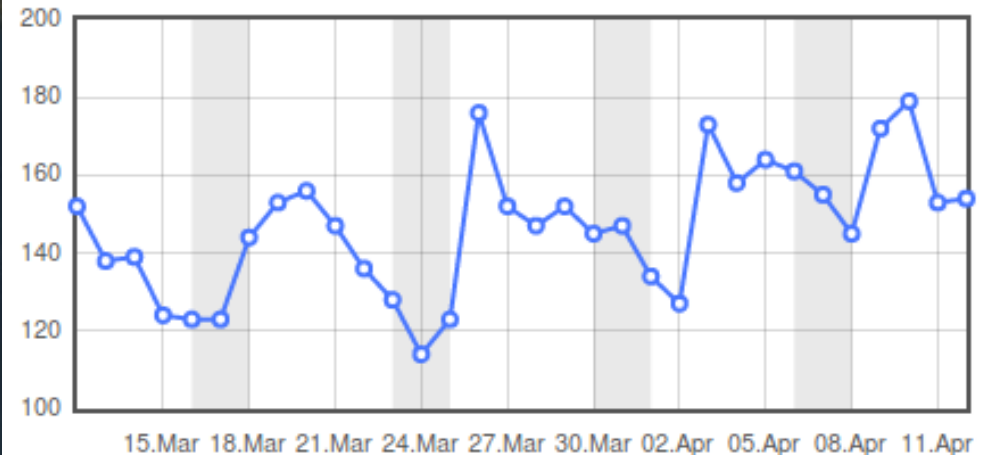


No. of daily active members overall



Average user activity in Italy

No. of daily active members





# Community

Do you want an updated and healthy map? Grow a local community!

Every country has a national mailing list.  
Many of them have regional's too.

*<https://lists.openstreetmap.org/listinfo/talk-it>*

Starting point for documentation

*[https://wiki.openstreetmap.org/wiki/Main\\_Page](https://wiki.openstreetmap.org/wiki/Main_Page)*

Other useful links

*<https://forum.openstreetmap.org/>*

*<https://switch2osm.org/>*

*<http://learnosm.org/>*

# What kind of data are in OSM

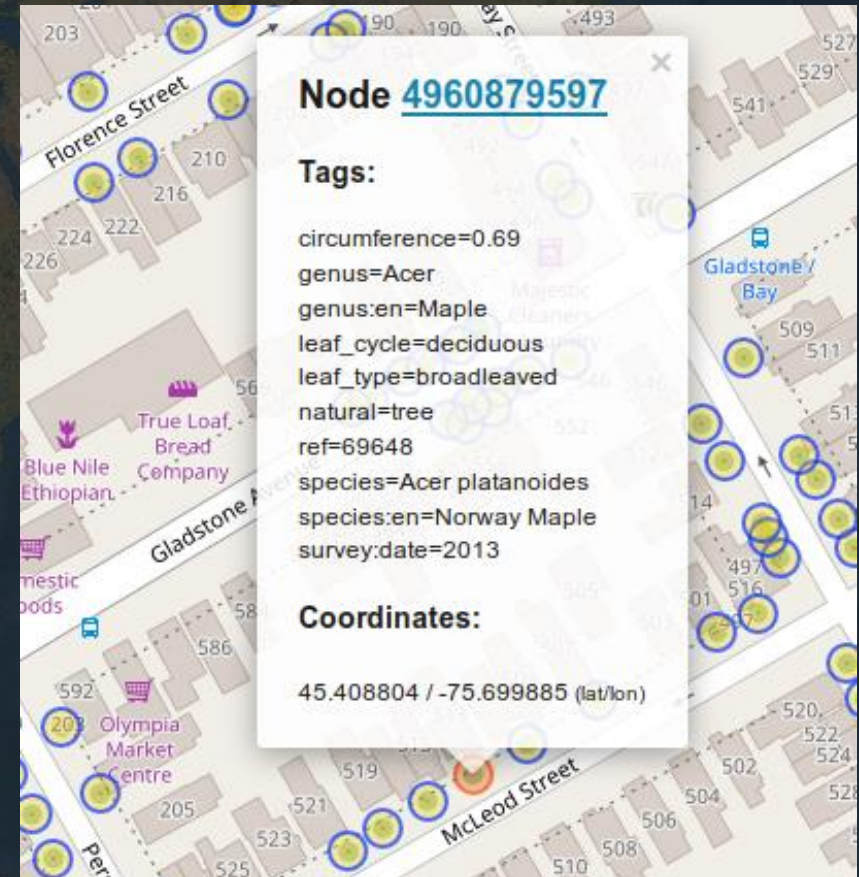
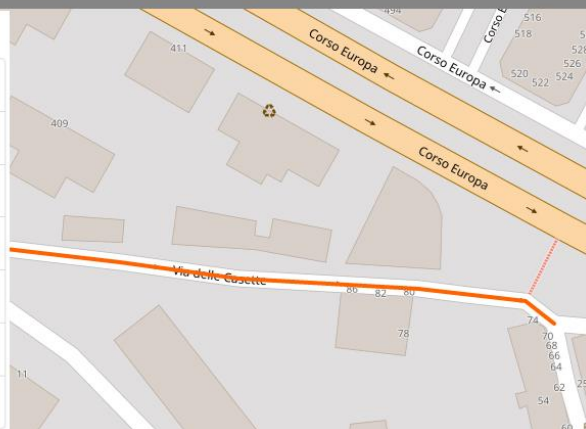
There's virtually no limit to the categories of data you can insert in OSM database

We use to record route too (bus, train, vessel, pilgrimage, ...)

Every kind of information (unusual too) ...



Etichette	
highway	unclassified
maxheight	3.5
maxspeed	30
maxweight	1.2
maxwidth	2
name	Via delle Casette
oneway	yes

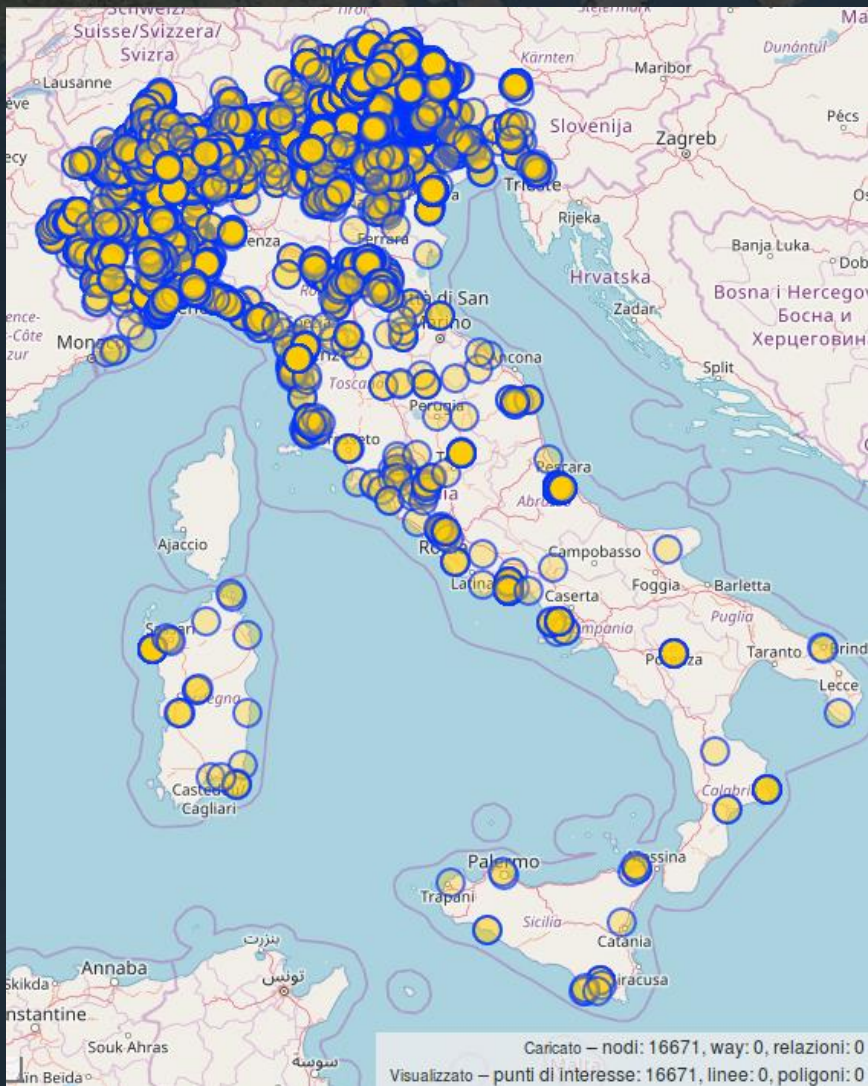




# Objects in OSM

... and I mean **every kind**

*Fire hydrant mapped in Italy (16671 so far); waste basket (12347)*





The 'planet' file is now 65Gb when compressed  
Europe is 20,4Gb, Italy 1,3Gb

## Figures

Statistics about some objects

Source *<http://taginfo.openstreetmap.org/>*

Building 281 293 283

School 910 427

Bench 869 758

Peak 513 832

Hospital 141 393



# OSM Editor

ID is a not so powerful but easy to use editor

The screenshot displays the OpenStreetMap ID editor interface. The browser address bar shows the URL: <https://www.openstreetmap.org/edit?editor=id#map=19/45.47716/9.22823>. The top navigation bar includes links for "Modifica", "Cronologia", and "Esporta", along with a user profile for "Ale\_Zena\_IT".

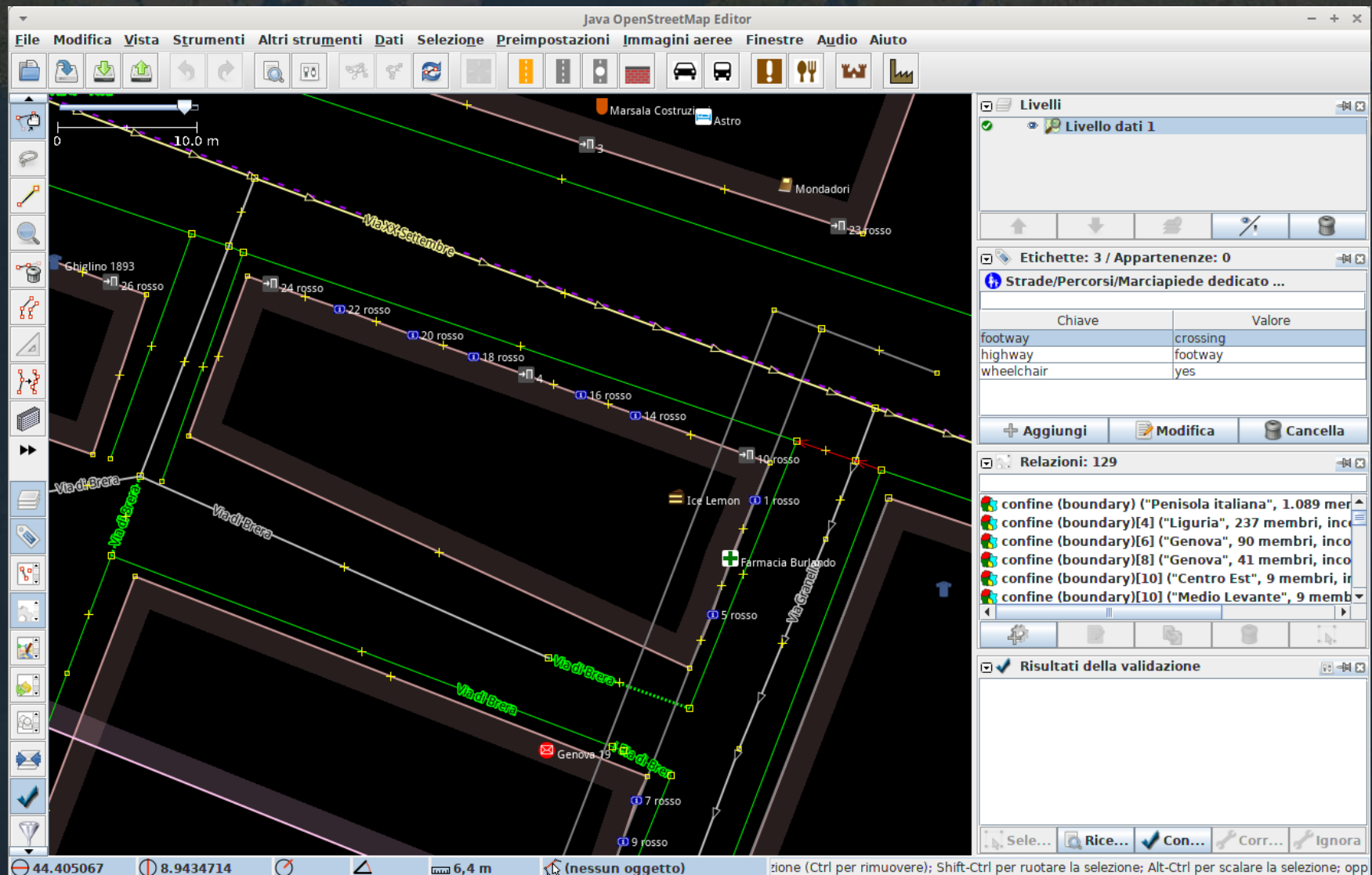
On the left, the "Modifica elemento" (Edit element) panel is active, showing the following details for a building:

- Edificio**: yes
- Piani**: 2, 4, 6...
- Indirizzo**: Strada 123, Unità, Codice postale, Città
- Aggiungi campo**: Descrizione, Altitudine, Email...
- Tutti i tag (5)**:
  - alt\_name: Ingegneria Strutt...
  - building: yes
  - name: Arturo Danusso
  - ref: Edificio 5
  - type: multipolygon

The main map area shows a building footprint outlined in red, with various map controls and a scale bar (35 metri) visible. The map includes labels for "Via Giovanni Celoria", "Facoltà di Agraria", and "Facoltà di Medicina Veterinaria". The bottom status bar indicates "Modifiche di Aury88, tars4815, Ale\_Zena\_IT, e 24 altri" and version "2.7.1".

# OSM Editor

JOSM is the most used editor: powerful and with a lot of plugins

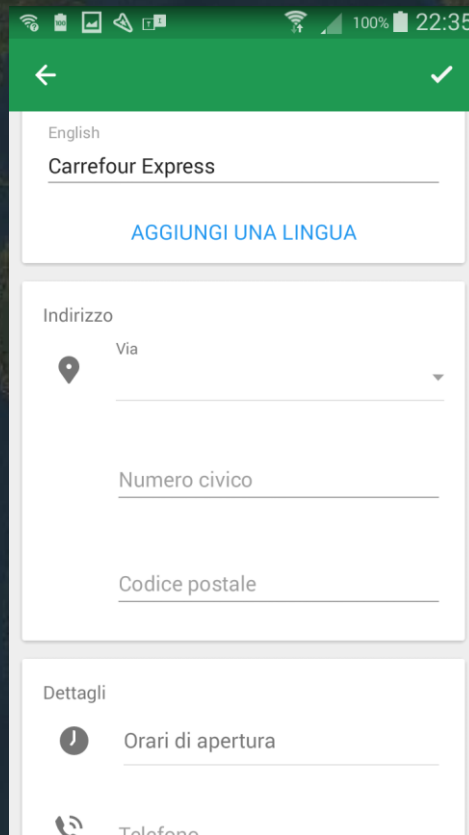
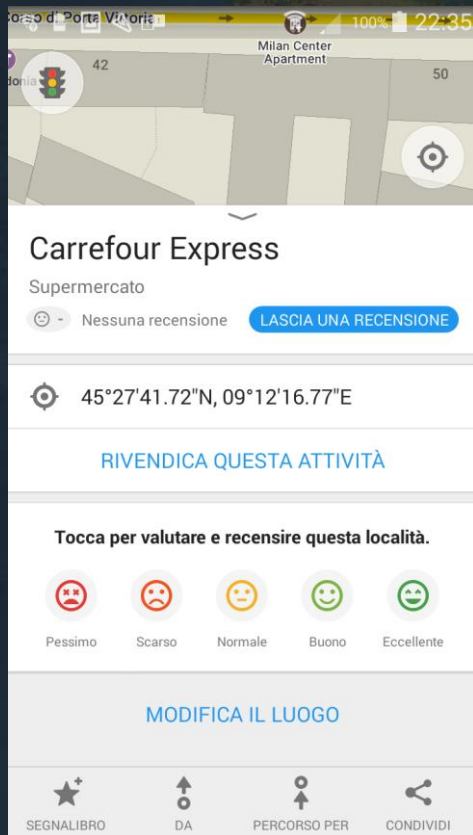




# Add info from apps

Just a couple apps we use to add information

*Maps.me*

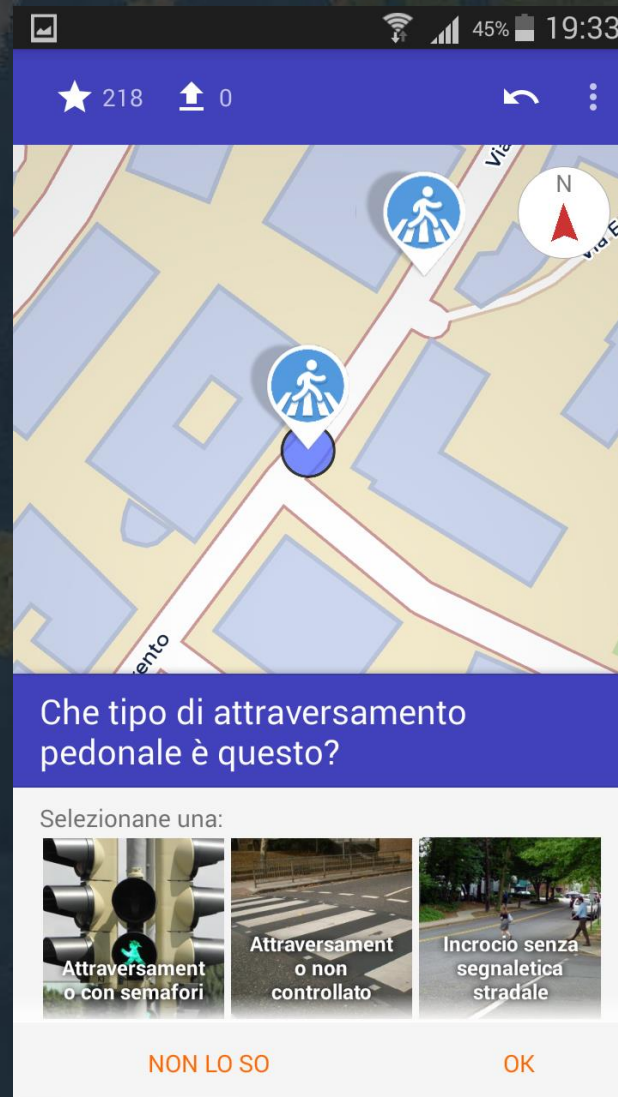
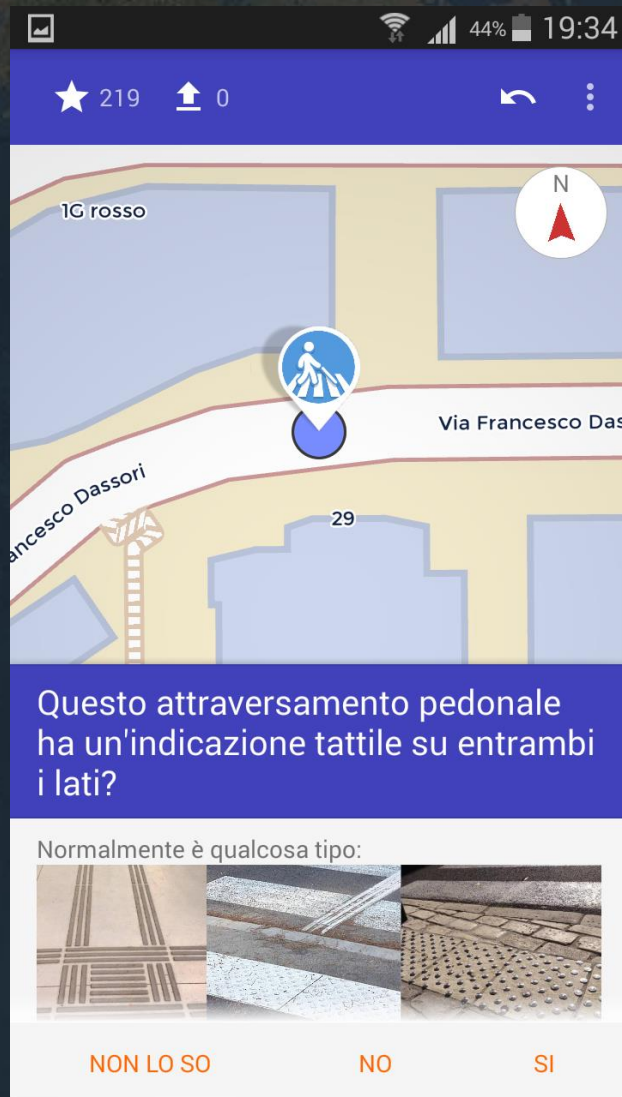


*Wheelmap*



# Add info from apps

times we use gamification effect to add details to the database: StreetComplete



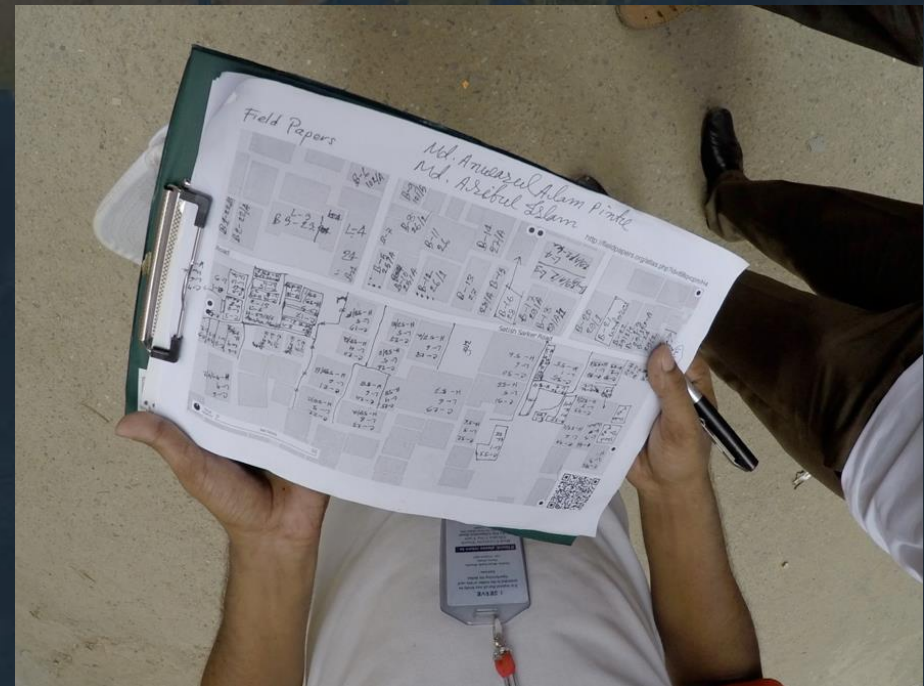


# Easy to use, easy to contribute

## Low cost tools



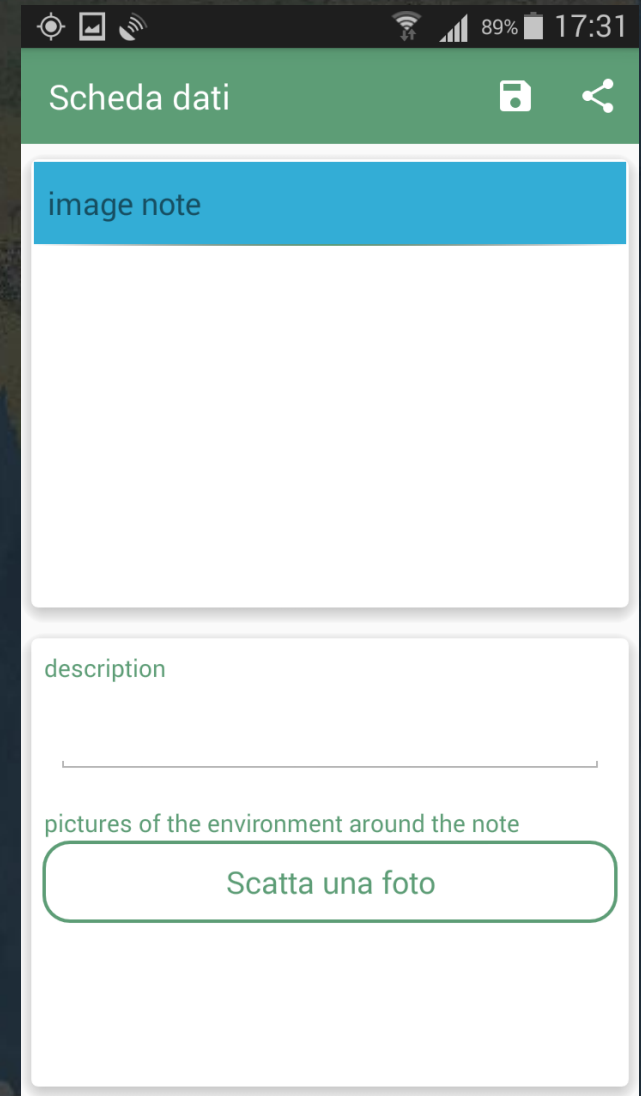
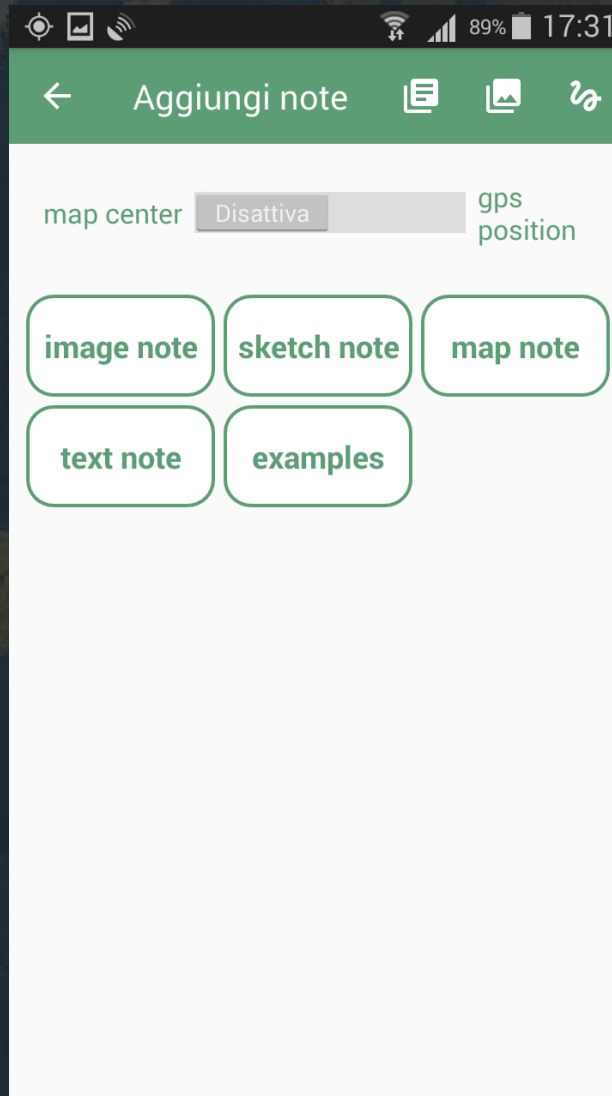
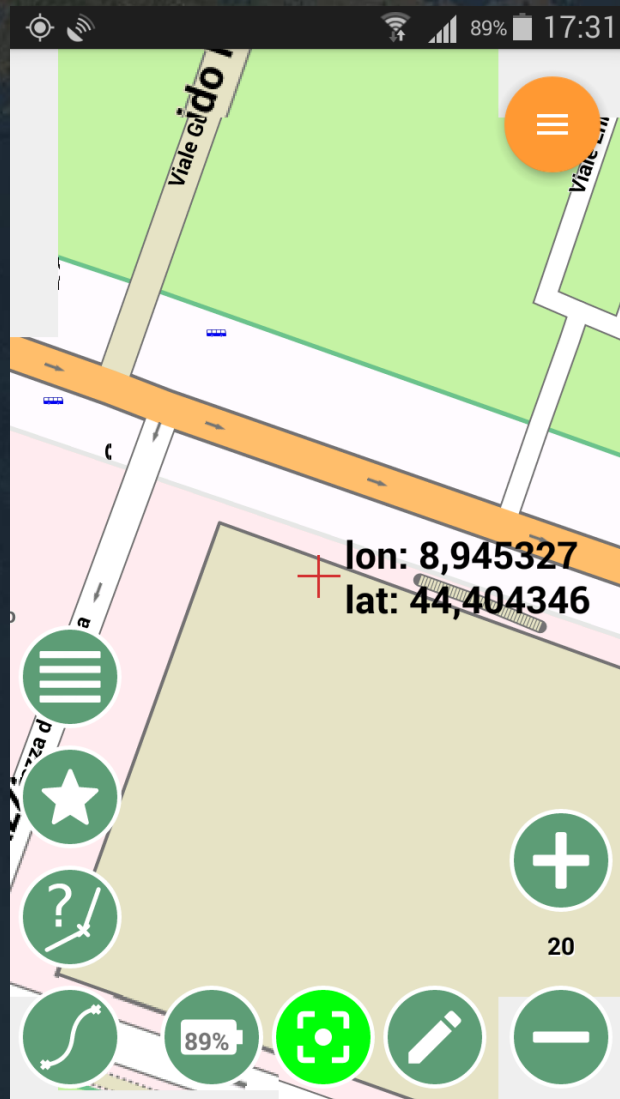
## No special skills required



# Easy to use, easy to contribute

The average tool is a smartphone with some apps.

*This one is called Geopaparazzi*





# Very low cost tools

Also without any GPS ...

## Field Papers

### MAKE

an atlas to print

### UPLOAD

pages you've marked

### WATCH

recent activity

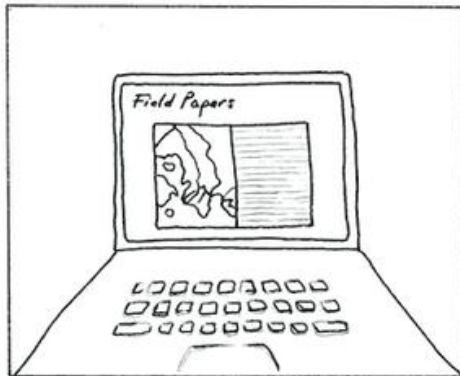
### EXTEND

with advanced tools

### LOG IN

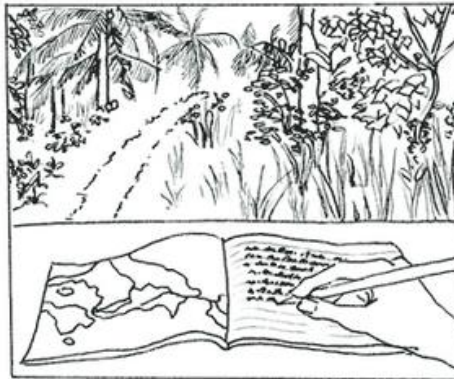
or create an account

## Welcome to Field Papers



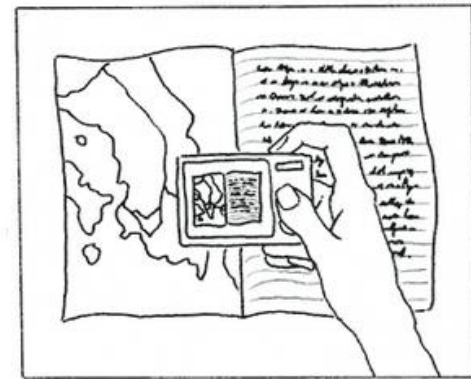
### [Make yourself an atlas](#)

Print out anywhere in the world.



### [Take it into the field](#)

Make your notes and observations.



### [Capture your notes](#)

[Upload](#) pages you've photographed.

Field Papers is built by [Stamen Design](#) / [About the Project](#) / [Help](#)

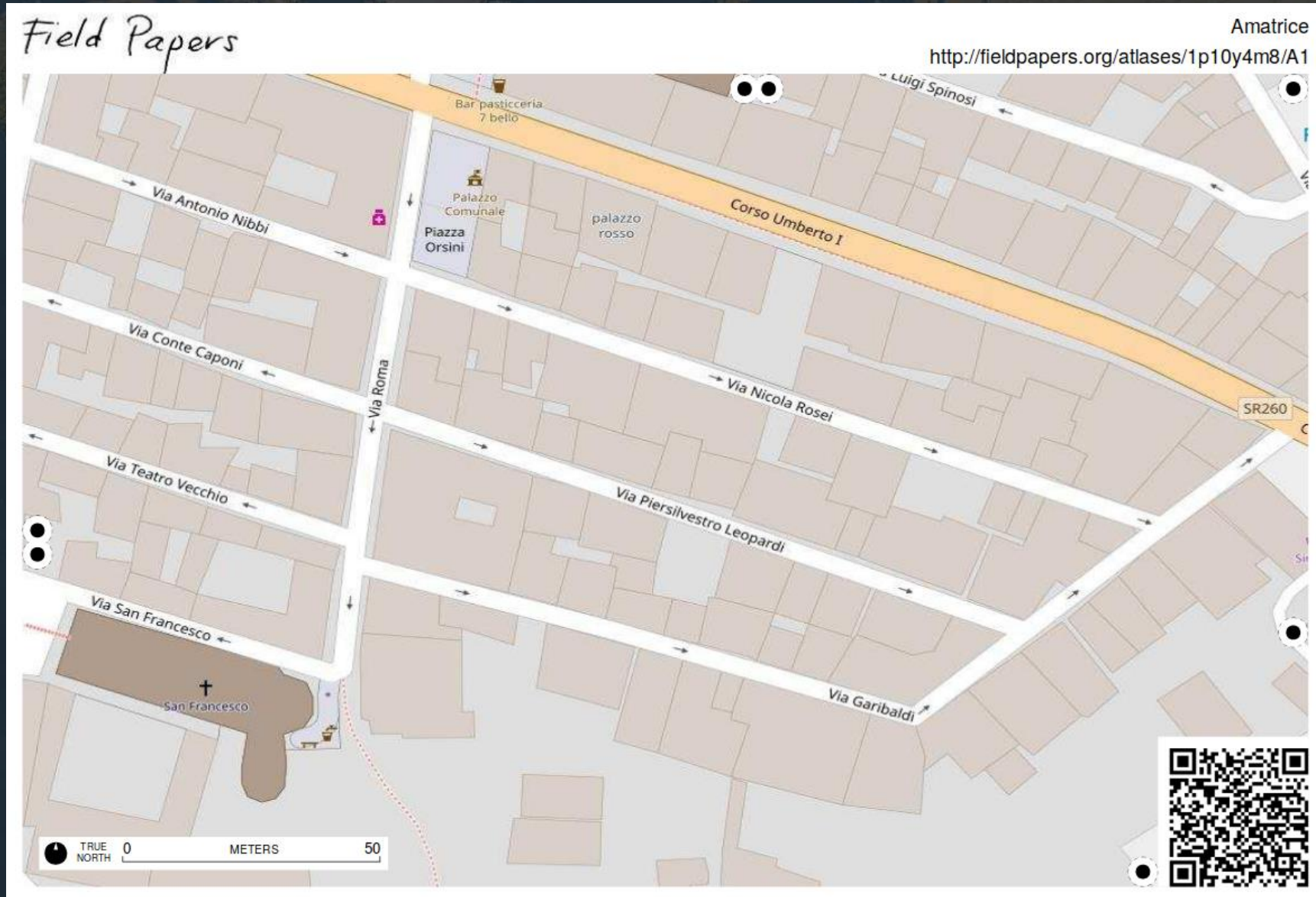
Map data © [OpenStreetMap](#) contributors, [Toner](#) by Stamen, [Bing](#) by Microsoft, [Mapbox](#), or a combination thereof.

[Dansk](#) [Deutsch](#) [English](#) [Español](#) [Français](#) [Bahasa Indonesia](#) [Italiano](#) [日本語](#) [عربي](#) [Nederlands](#) [Polski](#) [Português](#) [русский](#) [Kiswahili](#) [Tagalog](#) [Українська](#) [tiếng Việt](#) [普通话](#) [國語](#)

[Development Blog](#) [GitHub](#) [Issues](#) [Translations](#)

# Near no skill required

... just some paper and pencil





# Aid by sister projects

Several kind of data acquisition ..... (AI from Mapillary)

The screenshot displays a GIS application window with a menu bar (File, Modifica, Vista, Strumenti, Altri strumenti, Dati, Selezione, Preimpostazioni, Immagini aeree, Finestre, Audio, Aiuto) and a toolbar. The main map area shows a street network with various colored lines and points. A scale bar indicates 30.0 m. The sidebar on the right contains several panels:

- Livelli**: Shows a list of layers including "Mapillary Images" and "Livello dati 1".
- Etichette / Appartenenze**: A panel for selecting objects to modify labels, with buttons for "Aggiungi" and "Modifica".
- Relazioni: 128**: A list of relationships, including "confine (boundary)[10] ('Bassa Val Bisagno', 5 membri, incompleto)", "confine (boundary)[10] ('Medio Levante', 9 membri, incompleto)", and "corso d'acqua (waterway) ('Bisagno', 7 membri, incompleto)".
- Mapillary image**: A panel showing a specific image from the Mapillary project, dated 27/05/2015 at 12:35:44 (CEST). The image shows a street scene with a car and a traffic sign.

At the bottom of the window, there is a status bar with coordinates (44.4072949, 8.9492154) and a message "(nessun oggetto)".

# Get OpenStreetMap data

Free data and maps always available to everyone

## OpenStreetMap Data Extracts

Welcome to Geofabrik's free download server. This server has data extracts from the [OpenStreetMap project](#) which are normally updated every day. Select your continent and then your country of interest from the list below. (If you have been directed to this page from elsewhere and are not familiar with OpenStreetMap, we highly recommend that you read up on OSM before you use the data.) This download service is offered for free by Geofabrik GmbH.

Willkommen auf dem Geofabrik-Downloadserver. Hier gibt es Daten-Auszüge aus dem [OpenStreetMap-Projekt](#), die normalerweise täglich aktualisiert werden. Wählen Sie aus dem Verzeichnis unten den Kontinent und ggf. das Land, für die Sie Daten benötigen. (Wenn Sie von anderswo auf dieser Seite gelandet sind und von OpenStreetMap nichts wissen, dann ist es empfehlenswert, sich mit dem Projekt vertraut zu machen, bevor Sie mit den Daten arbeiten.) Diese Downloads werden von der Geofabrik GmbH kostenlos angeboten.

Click on the region name to see the overview page for that region, or select one of the file extension links for quick access.

Sub-Region	Quick Links		
	.osm.pbf	.shp.zip	.osm.bz2
<a href="#">Africa</a>	<a href="#">[.osm.pbf]</a>	×	<a href="#">[.osm.bz2]</a>
<a href="#">Antarctica</a>	<a href="#">[.osm.pbf]</a>	<a href="#">[.shp.zip]</a>	<a href="#">[.osm.bz2]</a>
<a href="#">Asia</a>	<a href="#">[.osm.pbf]</a>	×	<a href="#">[.osm.bz2]</a>
<a href="#">Australia and Oceania</a>	<a href="#">[.osm.pbf]</a>	×	<a href="#">[.osm.bz2]</a>
<a href="#">Central America</a>	<a href="#">[.osm.pbf]</a>	×	<a href="#">[.osm.bz2]</a>
<a href="#">Europe</a>	<a href="#">[.osm.pbf]</a>	×	<a href="#">[.osm.bz2]</a>
<a href="#">North America</a>	<a href="#">[.osm.pbf]</a>	×	<a href="#">[.osm.bz2]</a>
<a href="#">South America</a>	<a href="#">[.osm.pbf]</a>	×	<a href="#">[.osm.bz2]</a>

<http://download.geofabrik.de/>

<http://osm-estratti.wmflabs.org/estratti/>

From API etc...

osm-estratti.wmflabs.org/estratti/Lazio/Roma\_Capitale/Roma

Estratti OpenStreetMap

About Contatti Lingua

Estratti / Lazio / Roma Capitale / Roma

### Estratti OpenStreetMap

Questa è la pagina del Comune di Roma, contiene i dati geografici del database di [OpenStreetMap](#). Sono disponibili per il download gratuito secondo i termini della Licenza [ODbL](#), sono stati estratti alle 02:56 CET del 19/03/2018 e vengono aggiornati ogni giorno. Questo significa che, una modifica fatta adesso, comparirà negli estratti di domani. [Partecipa](#) e migliora la mappa del tuo Comune!

### Statistiche e Download

Ogni settimana effettuiamo statistiche sui dati geografici del Comune di Roma, per verificare l'andamento del processo di mappatura OpenStreetMap. Confrontiamo quindi questi dati con i valori precedenti e visualizziamo i valori nella tabella qui sotto.

I dati vengono ritagliati sul rettangolo che racchiude il confine amministrativo e resi disponibili in formato Pbf (protocol buffer), SHP (Shapefile), Spatialite. Il file in formato SHP, per via delle sue limitazioni tecniche, contiene solo alcune tipologie di dati (layer). Il sistema di riferimento di tutti i layer contenuti nel file è [EPSG:4326](#).

Data	Strade	Civici	Edifici	POI
2018-02-23	11.134.449 km	12988	140638	15515
2018-03-02	11.142.602 km	13301	141146	15761
2018-03-09	11.142.052 km	13215	142147	15660
2018-03-16	11.146.658 km	13285	143341	15700

SHP (38.86 MB)

PBF (22.44 MB)

OSM (51.09 MB)

Spatialite (62.61 MB)

POLY (0.11 MB)

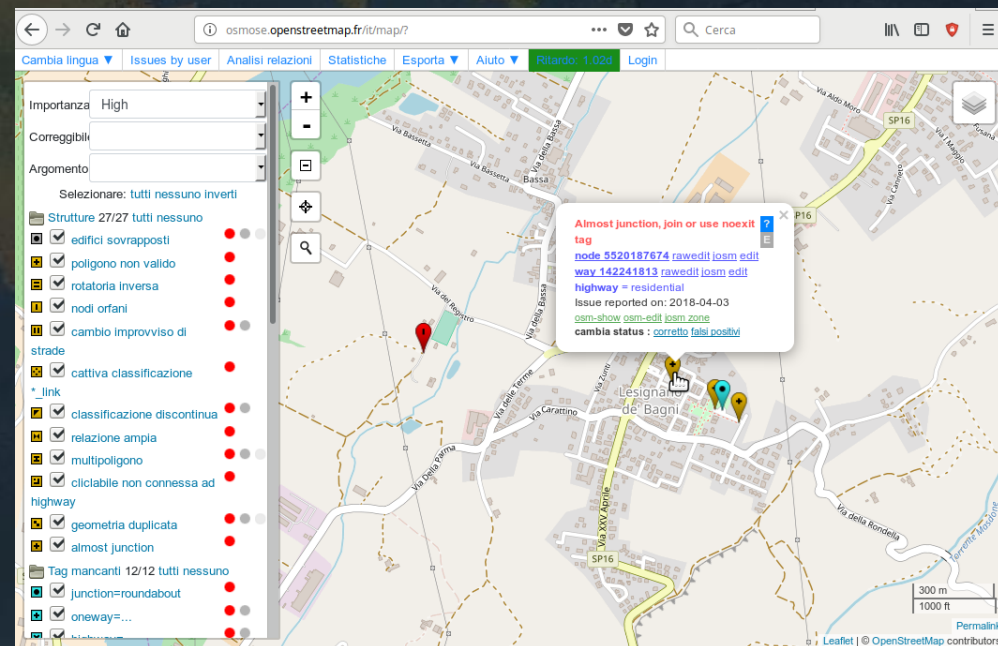
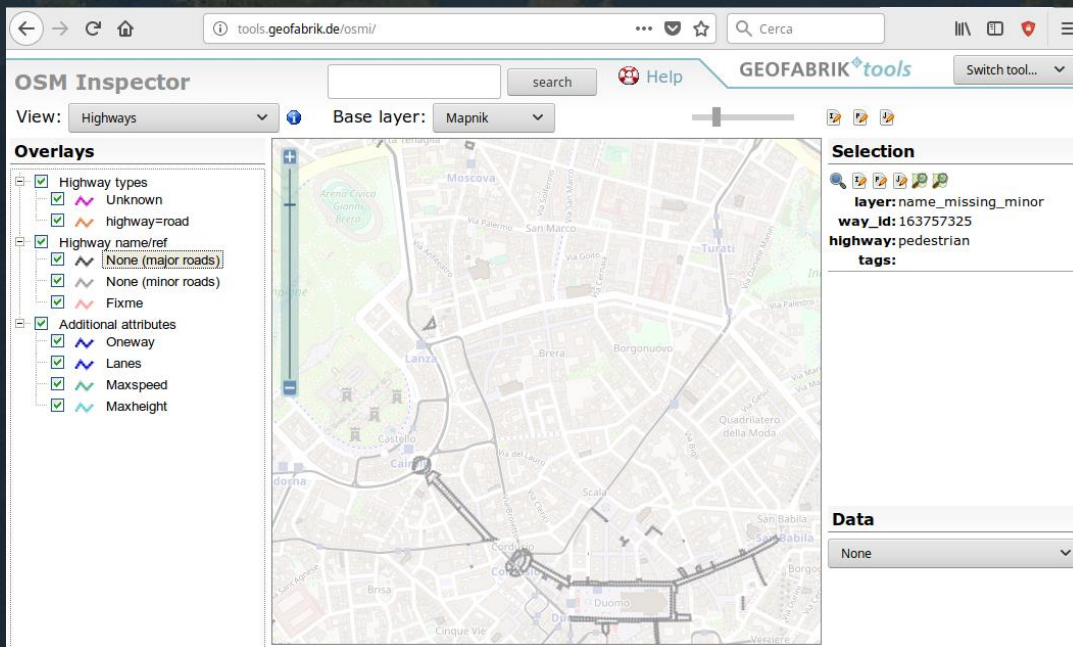
PBF [cut] (15.73 MB)

OSM [cut] (35.85 MB)



# Quality Assurance

OsmInspector and osmose: show potential error on several object category



# Quality Assurance

Keepright: another good tool

errors

- ☒ non-closed areas
- ☒ dead-ended one-ways
- ☒ almost-junctions
- ☒ missing tags
- ☒ motorways without ref
- ☒ places of worship without re
- ☒ point of interest without nar
- ☒ ways without nodes
- ☒ floating islands
- ☒ railway crossings without ta
- ☒ wrongly used railway crossin
- ☒ fixme-tagged items
- ☒ relations without type
- ☒ intersections without jun
- ☒ overlapping ways
- ☒ loopings
- ☒ misspelled tags
- ☒ layer conflicts
- ☒ motorways connected direct
- ☒ boundaries
- ☒ restrictions
- ☒ roundabouts
- ☒ \*\_link-connections
- ☒ bridge-tags

almost-junctions, node [3625098914](#)

This node is very close but not connected to way #[59281732](#)

edit in [JOSM](#) [Potlatch](#) [iD](#) [Level0](#)

☒ keep this error open

☐ ignore temporarily (error corrected)

☐ ignore (false-positive)

save cancel

please click on the icon to fixate the bubble

link to here: error #[78247730](#)

last edit of this node: [Cascafico](#) 2015-06-29 13:56:59

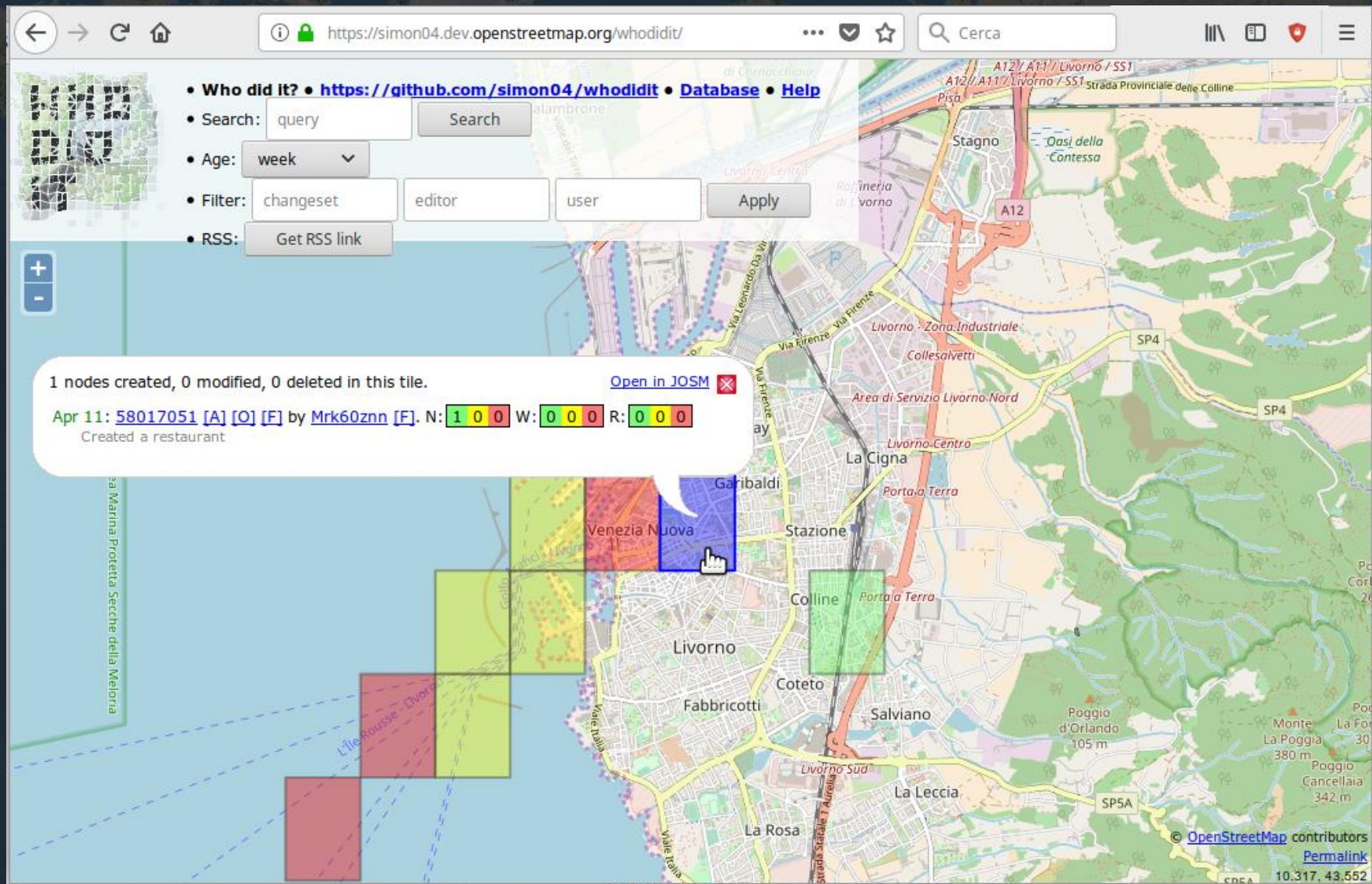
© [OpenStreetMap](#) contributors

[permalink](#)



# Quality Assurance

## Monitoring activities. We can select an area and get Feed too.



# Quality Assurance

## What kind of user is?

hdy:neis-one.org/?Mrk60znn

### How did you contribute to OpenStreetMap?

Mrk60znn

**Name:** [Mrk60znn](#)  
**Registered:** June 18th, 2017  
**Active mapping days:** 18 (6.0%)  
**Created changesets:** 24  
**Map changes:** 37  
**GPS-tracks:** 0  
**Review requests:** 0 (own replies: 0)  
**Discussed own changesets:** 0  
**Type?** Hit-and-Run (Regularly Active)  
**Recent changesets (details):** Italy 10 Japan 1  
**Recent ranks:** Japan [#1398](#) Italy [#1597](#)  
**OSM Notes:** Closed w/ comment 0 (w/o 0), commented 0 and opened 3  
**Changeset discussions:** Participated in 0 and [created 0 comments](#)  
**18 mapping days with 25 changesets in the last year**  

	Created	Modified	Deleted
<b>Nodes</b>	28 (78%)	8 (22%)	0 (0%)
<b>Ways</b>	0 (0%)	2 (100%)	0 (0%)
<b>Relations</b>	0 (NaN%)	0 (NaN%)	0 (NaN%)
<b>Ways with addr*</b>	18	3	
<b>Building</b>	0	1	
<b>Highway</b>	1	0	
<b>Landuse</b>	0	0	
<b>Name</b>	28	12	
<b>Natural</b>	0	1	
<b>Waterway</b>	0	0	
<b>Changesets</b>	<b>With comments</b>	<b>Unique comments</b>	<b>Median length</b>
24	23 (95.8%)	12 (50.0%)	20.00
<b>Comment-words:</b>	restaurant (19), created (18), updated (8)		
<b>Amount of map changes</b>	<15 changes: 24 changesets	>15 <150 changes: 0 changesets	>150 changes: 0 changesets

**First created & latest changeset**  
Your first changeset created Jun 25th 2017  
Your latest changeset edited Apr 15th 2018

### How did you contribute to OpenStreetMap?

Ale\_Zena\_IT

**Name:** [Ale\\_Zena\\_IT](#)  
**Registered:** December 21st, 2007  
**Active mapping days:** 2289 (60.7%)  
**Created changesets:** 9 047  
**Map changes:** 1 184 633  
**GPS-tracks:** 0  
**Review requests:** 0 (own replies: 15)  
**Discussed own changesets:** [39](#)  
**Type?** Super Mapper (Mega Active)  
**Recent changesets (details):** Italy 333  
**Recent ranks:** Italy [#13](#)  
**OSM Notes:** Closed w/ comment 52 (w/o 5), commented 6 and opened 9  
**Changeset discussions:** Participated in 89 and [created 96 comments](#)  
**313 mapping days with 1 756 changesets in the last year**  

	Created	Modified	Deleted
<b>Nodes</b>	870 402 (79%)	196 605 (18%)	28 955 (3%)
<b>Ways</b>	70 087 (55%)	55 494 (44%)	1 596 (1%)
<b>Relations</b>	685 (20%)	2 688 (78%)	62 (2%)
<b>Ways with addr*</b>	131 010	23 994	
<b>Building</b>	5 470	4 863	
<b>Highway</b>	43 350	54 229	
<b>Landuse</b>	451	215	
<b>Name</b>	16 779	43 367	
<b>Natural</b>	1 651	955	
<b>Waterway</b>	19 742	1 680	
<b>Changesets</b>	<b>With comments</b>	<b>Unique comments</b>	<b>Median length</b>
9 047	7 145 (79.0%)	4 882 (61.3%)	23.00
<b>Comment-words:</b>	dettagli (1187), genova (891), strade (491), dintorni (431), zona (348)		
<b>Amount of map changes</b>	<15 changes: 3 978 changesets	>15 <150 changes: 3 355 changesets	>150 changes: 1 714 changesets

**Main & latest (6 months) activity area - First created & latest changeset**



# Quality Assurance

## Tools and people: Mapbox data team



Mapbox

Follow

We are a location data platform, changing the way people explore the world.  
Dec 17, 2015 · 2 min read

### Quality assurance in the data team

By *Chethan Gowda*

The [Mapbox data team](#) works with the OpenStreetMap community daily by creating [new data](#), [improving existing features](#), or [fixing errors reported by our users](#). We touch [a lot of data](#) everyday. In order to ensure the highest level of [quality in our work](#), we follow a strict process of quality assurance within the team. We do this in several ways. For instance, before uploading any changes, we use the JOSM [Validator](#) to [fix errors within the area we are working](#).

#### Manual peer review

Every week, we [review all of our team edits](#) from last week's [mapping projects](#). We alternate between Ayacucho and Bangalore teams undertaking the review. Our process:

- We extract all the OpenStreetMap objects touched by our team, for the previous week.

#### Mapbox Data Team

The Mapbox Data Team continuously [improves OpenStreetMap](#) documented in our [mapping repository](#).

#### Current Data Team members

Here are the OpenStreetMap user accounts on the Mapbox team: [Sambale](#) or [Jinal Fofila](#). These are only the usernames of the team members mapping on OpenStreetMap as a hobby.

Name	OSM Username
Andrey Golovin	<a href="#">andygol</a>
Srividya Bharadwaj	<a href="#">srividya_c</a>
Jothimadh Guthula	<a href="#">Jothimadh</a>
Abhishek Saikia	<a href="#">saikabhi</a>
Maning Sambale	<a href="#">manings</a>
Krishna Nammala	<a href="#">nammala</a>
Poornima Badrinath	<a href="#">poornibadrinath</a>
Upendra Yadav	<a href="#">upendrakarukonda</a>
Bryan Housel	<a href="#">bhousel</a>
Paige Moody	<a href="#">pmoody</a>
Bhojaraj B	<a href="#">Bhojaraj</a>
Lingineni Bhavana	<a href="#">bhavana naga</a>
Ashley Ann Matthew	<a href="#">ashleyannmathew</a>
Martha Leena Bonula	<a href="#">marthaleena</a>
Kelvin Geo Mathew K	<a href="#">muziriana</a>
Oormila Vinod	<a href="#">oormilavinod</a>

#### Team members active in OpenStreetMap

These are the user accounts of team members who are active in OpenStreetMap.

Name	OSM Username
Mikel Maron	<a href="#">mikelmaron</a>
Nicholas Ingalls	<a href="#">ingalls</a>
Tom Lee	<a href="#">Tom Lee</a>
Alex Barth	<a href="#">Ixbarth</a>

# Map compare

## Map Compare

genova

search

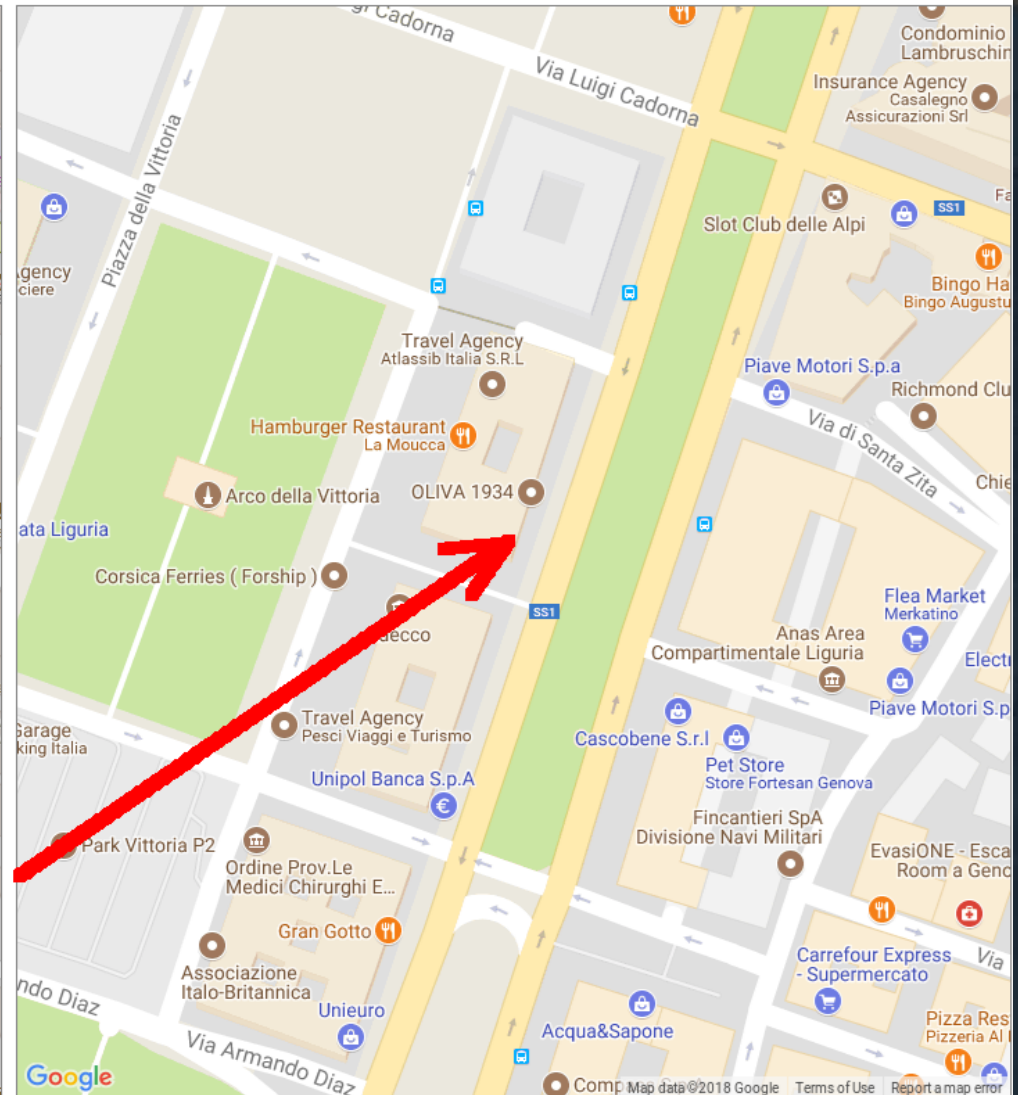
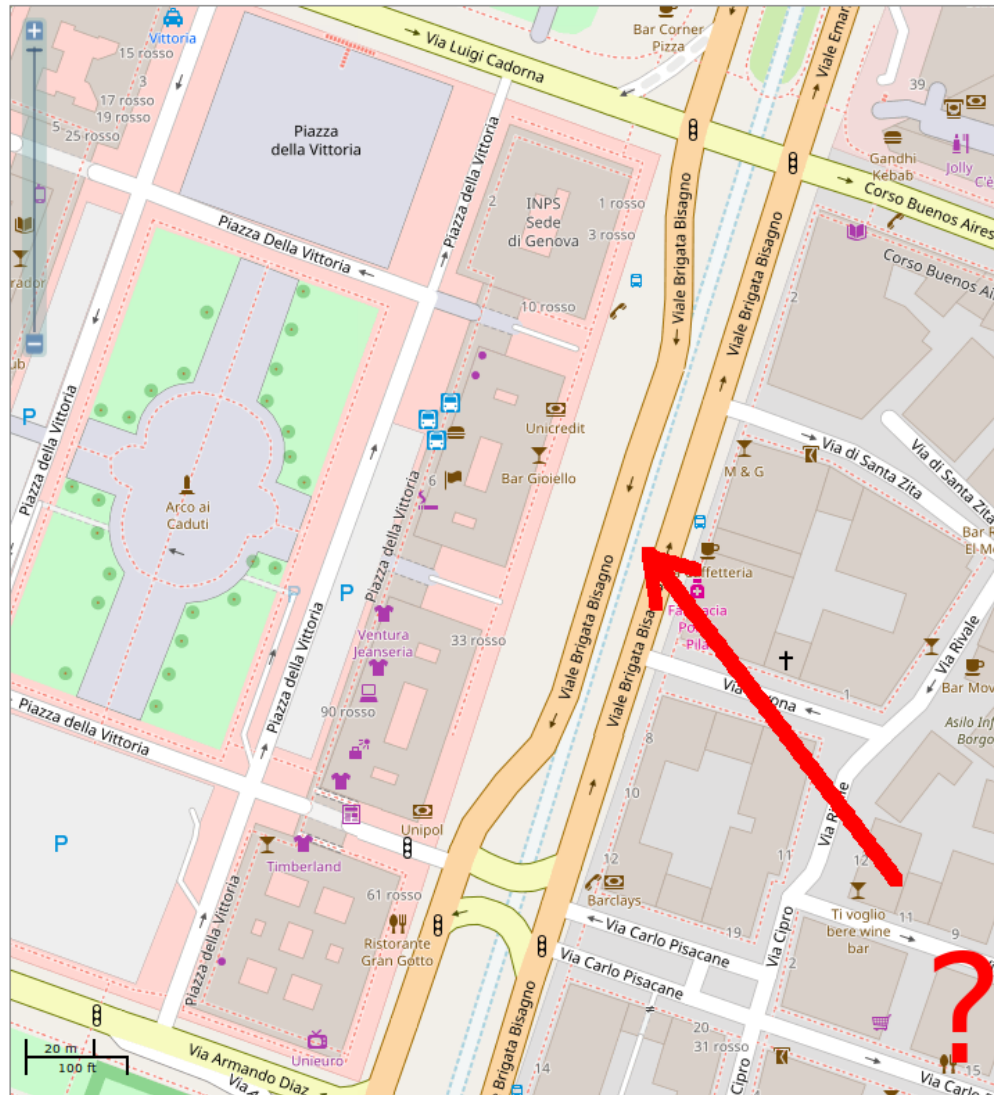
Help

GEOFABRIK tools

Switch tool...

Choose map type: OSM Carto

Choose map type: Google Map





# Map compare

## Percorso: Viale Brigata Bisagno (385109376) ✕

Marciapiedi e dettagli zona Vittoria-B.Bisagno

Modificato [1.giorno fa](#) da [laser82](#)

Versione #7 - Gruppo di modifiche #58086502

### Etichette

highway	primary
lanes	3
name	Viale Brigata Bisagno
oneway	yes


### Parte di

Relazione [13 Caricamento \(2834561\)](#)

Relazione [31 Sturla \(7858795\)](#)

Relazione [15 Viale Brigata Liguria \(2981707\)](#)

### Nodi

[36910670](#) (parte del percorso  [Viale Brigata Bisagno \(5850950\)](#))


[3884630395](#)

[3884630394](#)


[5532634544](#)



[5532634547](#)

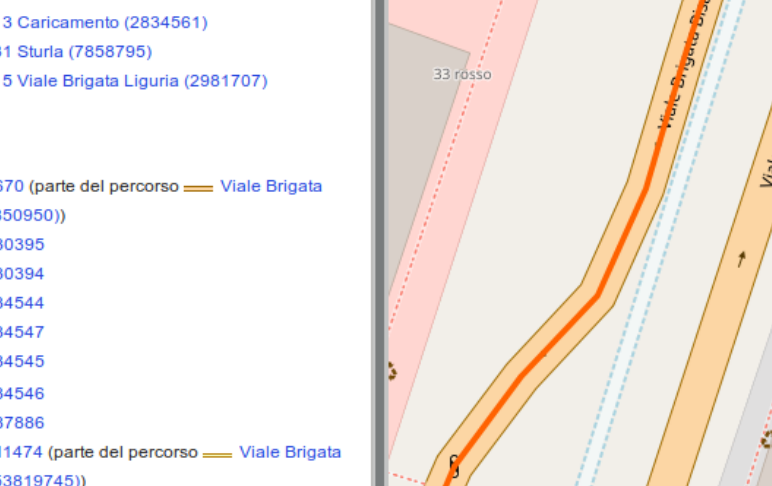
[5532634545](#)

 [5532634546](#)

[5552187886](#)

[5345511474](#) (parte del percorso  [Viale Brigata Bisagno \(553819745\)](#))

[697964708](#) (parte dei percorsi  [Viale Brigata Bisagno \(553985333\)](#) e  [Piazza della Vittoria \(527892283\)](#))



[Scarica XML](#) - [Visualizza cronologia](#)

Ver	A	B	Data	Utente	Editor
1	<input type="radio"/>	<input type="radio"/>	09/12/15 13.51	Ale_Zena_IT	JOSM/1.5 (9076 it)
2	<input type="radio"/>	<input type="radio"/>	11/09/16 8.34	Ale_Zena_IT	JOSM/1.5 (10992 it)
3	<input type="radio"/>	<input type="radio"/>	26/09/17 19.08	laser82	JOSM/1.5 (12712 it)
4	<input type="radio"/>	<input type="radio"/>	17/01/18 20.13	laser82	JOSM/1.5 (13265 it)
5	<input type="radio"/>	<input type="radio"/>	18/01/18 12.16	laser82	JOSM/1.5 (13265 it)
6	<input checked="" type="radio"/>	<input type="radio"/>	06/04/18 8.39	Ale_Zena_IT	JOSM/1.5 (13584 it)
7	<input type="radio"/>	<input checked="" type="radio"/>	14/04/18 12.35	laser82	JOSM/1.5 (13576 it)

# OpenStreetMap and the emergency

## Collaborative tool for remote mapping

[OSM Tasking Manager](#) - Wikimedia Italia

AboutItalianoAle\_Zena\_IT

#15 - Copernicus assessment

DescrizioneIstruzioniContribuisciAttivitàStatistiche

Dati Copernicus basati su OSM contenenti il grado dei danni  
Da WMS inserire come il task #14 i dati relativi ai danni degli edifici

WMS [http://osmit3.wmflabs.org/cgi-bin/qgis\\_mapserv.fcgi?map=/srv/Copernicus/settlements\\_grading.qgs&SERVICE=WMS&REQUEST=GetCapabilities&VERSION=1.3](http://osmit3.wmflabs.org/cgi-bin/qgis_mapserv.fcgi?map=/srv/Copernicus/settlements_grading.qgs&SERVICE=WMS&REQUEST=GetCapabilities&VERSION=1.3)

Legenda <http://imgur.com/a/cfOfA>

Grazie ad Alessandro Sarretta per l'elaborazione

Attribution: Copernicus Emergency Management Service (© 2016 European Union), [EMSR177](#)

UPDATE 30/08/2016: Nuovi WMS da dati Copernicus EMS:

- [http://osmit3.wmflabs.org/cgi-bin/qgis\\_mapserv.fcgi?SERVICE=WMS&MAP=/srv/geotiff/geotiffs\\_merged.qgs&REQUEST=GetCapabilities](http://osmit3.wmflabs.org/cgi-bin/qgis_mapserv.fcgi?SERVICE=WMS&MAP=/srv/geotiff/geotiffs_merged.qgs&REQUEST=GetCapabilities) contiene tutti i geotiff finora prodotti (esclusi quelli descritti al punto successivo), all'ultima versione, clippati sull'area di analisi e mergiati in un'unico file [all geotiffs produced till now except aerial imagery in the next wms]
- [http://osmit3.wmflabs.org/cgi-bin/qgis\\_mapserv.fcgi?SERVICE=WMS&MAP=/srv/geotiff/geotiffs\\_aerial\\_merged.qgs&REQUEST=GetCapabilities](http://osmit3.wmflabs.org/cgi-bin/qgis_mapserv.fcgi?SERVICE=WMS&MAP=/srv/geotiff/geotiffs_aerial_merged.qgs&REQUEST=GetCapabilities) contiene tutte le immagini aeree prodotte per i centri abitati, sempre clippate e non mergiate. Le ho tenute separate perché sono a risoluzione molto elevata. [all aerial imagery of inhabited areas]

[Istruzioni](#)

Leaflet | Map data © OpenStreetMap contributors



# OpenStreetMap and the emergency

We can activate the community within minutes

*<http://osmit-tm.wmflabs.org/>*

osmit-tm.wmflabs.org

OSM Tasking Manager - Wikimedia Italia

About Italiano Ale\_Zena\_IT

Progetti

Ordina per: Precedenza alla priorità alta

☐ I tuoi progetti

#18 Terremoto Norcia 30-10-2016

In prima battuta mappiamo il mappabile con le immagini satellitari. Rimanete aggiornati sulla Mailing list italiana o su twitter.

100%

Creto da sbiribizio - Aggiornato circa un anno fa - Priorità: urgente - Archiviato

#17 Terremoto maceratese 26-10-2016 Zona Nord

Mappiamo il mappabile con le immagini satellitari. Zona Fabriano e Camerino.

11%

Creto da sbiribizio - Aggiornato circa un anno fa - Priorità: urgente - Archiviato

#16 Terremoto maceratese 26-10-2016

In prima battuta mappiamo il mappabile con le immagini satellitari. Rimanete aggiornati sulla Mailing list italiana o su twitter.

90%

Creto da sbiribizio - Aggiornato circa un anno fa - Priorità: urgente - Archiviato

#8 Abruzzo strade

Mappatura delle strade della regione Abruzzo

16%

Creto da sbiribizio - Aggiornato 14 giorni fa - Priorità: alta

#31 Recanati

9%

Creto da sabas88 - Aggiornato 8 giorni fa - Priorità: media

Informazioni su Tasking Manager

OSM Tasking Manager è uno strumento di mappatura progettato e sviluppato per la mappatura collaborativa dell'Humanitarian OSM Team. Lo scopo dello strumento è suddividere un lavoro di mappatura in compiti più piccoli che possono essere completati rapidamente. Mostra quali aree hanno bisogno di essere mappate e quali aree necessitano di convalida della mappatura. Questo approccio facilita la distribuzione dei compiti ai vari mappatori in un contesto di emergenza. Permette anche il controllo del progresso e dell'omogeneità del lavoro svolto (ad esempio elementi da coprire, tag specifici da usare, eccetera).

New to Mapping?

Just jump over to [OpenStreetMap](#), create an account, and then visit [this tutorial](#). Then come back here to help map for people on the ground!

Questions About Tasks, Mapping or HOT?

If you have any questions about a project, a task or mapping in general please ask on our mailing list: [HOT E-Mail List](#)

Or visit us in our IRC Chat Channel, just select #hot from the pop down channel list: [OSM HOT IRC Channel #hot](#)

General inquiries and comments are welcomed at: [info@hotosm.org](mailto:info@hotosm.org)

# OpenStreetMap and the emergency

In the aftermath of the 24 August 2016 earthquake Italian community answered immediately. Wikimedia Italia by the “Tasking Manager” tool created a task starting to map the affected region.

The screenshot shows the OSM Tasking Manager web application. The browser address bar displays `osmit-tm.wmflabs.org/project/13`. The page header includes the title "OSM Tasking Manager - Wikimedia Italia" and navigation links for "About", "Italiano", and "Accedi tramite OpenStreetMap". The main heading is "#13 - Terremoto Centro Italia 24-08-2016". Below this are tabs for "Descrizione", "Istruzioni", "Contribuisci", "Attività", and "Statistiche". The "Descrizione" tab is active, showing a detailed description of the mapping project in Italian and English, including priority areas and project goals. A green "Istruzioni" button is located below the text. On the right, a map of Central Italy is displayed with a grid overlay. The grid cells are color-coded: yellow for "Cur. worked on (0)", grey for "Annullato", orange for "Fatto", and green for "Confermato". A legend at the bottom left of the map explains these colors. A scale bar indicates 10 km and 5 mi. The map also shows a "Priorità alta" (High Priority) area. A small inset map in the top right corner shows the location of the project area within Europe.

osmit-tm.wmflabs.org/project/13

OSM Tasking Manager - Wikimedia Italia

About Italiano Accedi tramite OpenStreetMap

#13 - Terremoto Centro Italia 24-08-2016

Descrizione Istruzioni Contribuisci Attività Statistiche

Mappiamo il mappabile, vediamo se riusciamo ad ottenere foto aeree aggiornate della zona, rimanete aggiornati sulla Mailing list italiana o su twitter.

Le zone dove è necessario avere più informazioni sono: Amatrice, Accumoli, Sommati, Cittareale, San Benedetto, Colle Magrone, Norcia (con 1 Km di Buffer dove dovrebbero stazionare molte funzioni di soccorso), Popoli, Villanova, Poggio Casoli, San Giovanni.

Map the features you see, meanwhile we'll try to have updated imagery, more news on the italian mailing list or via twitter. (we'll update this description).

Priority areas: Amatrice, Accumoli, Sommati, Cittareale, San Benedetto, Colle Magrone, Norcia (also a buffer of 1 km around it, the emergency services will probably be located there), Popoli, Villanova, Poggio Casoli, San Giovanni.

Nel progetto <http://osmit-tm.wmflabs.org/project/14> è chiesto di mappare la situazione attuale.

Nel progetto <http://osmit-tm.wmflabs.org/project/15> aggiorniamo i dati con l'assessment di Copernicus.

Istruzioni

Cur. worked on (0)  
Annullato  
Fatto  
Confermato

Priorità alta

10 km  
5 mi

Leaflet | Map data © OpenStreetMap contributors



# OpenStreetMap and the emergency

The day after we got updated satellite imagery and in a few hours we mapped collapsed bridges, blocked roads and the first tent camps.

OpenStreetMap for several weeks was the only map with updated information.

OSM Tasking Manager - Wikimedia Italia
About English Ale\_Zena\_IT

## #14 - Amatrice: Post-earthquake imagery

[Edit](#)
[Export](#)

[Description](#)
[Instructions](#)
[Contribute](#)
[Activity](#)
[Stats](#)

Damage assessment from imagery in Amatrice Area Tasks are smaller, please upload each task separately if you can.

[Suggested keys for assessment](#)

Foto post-terremoto: tagging della situazione attuale con tag HOT

Thanks to: - Massimo Zotti e Planetek - European Space Imaging - napo

Instructions

+  
-

300 m  
1000 ft

# OpenStreetMap and the emergency



COPERNICUS

Emergency Management Service



LATEST NEWS : 2018-03-14 | The Copernicus Emergency Management Service Monitors the Floods In North Western Albania

Copernicus Emergency Management Service



**Copernicus EMS**

@CopernicusEMS



Following

@OpenStreetMapIt @Ale\_Zena\_IT Indeed, last OSM shapefile used in our maps production is from 11am today. Thank you for your precious help ;)

Visualizza traduzione

RETWEET

8

MI PIACE

12



14:31 - 25 ago 2016



8



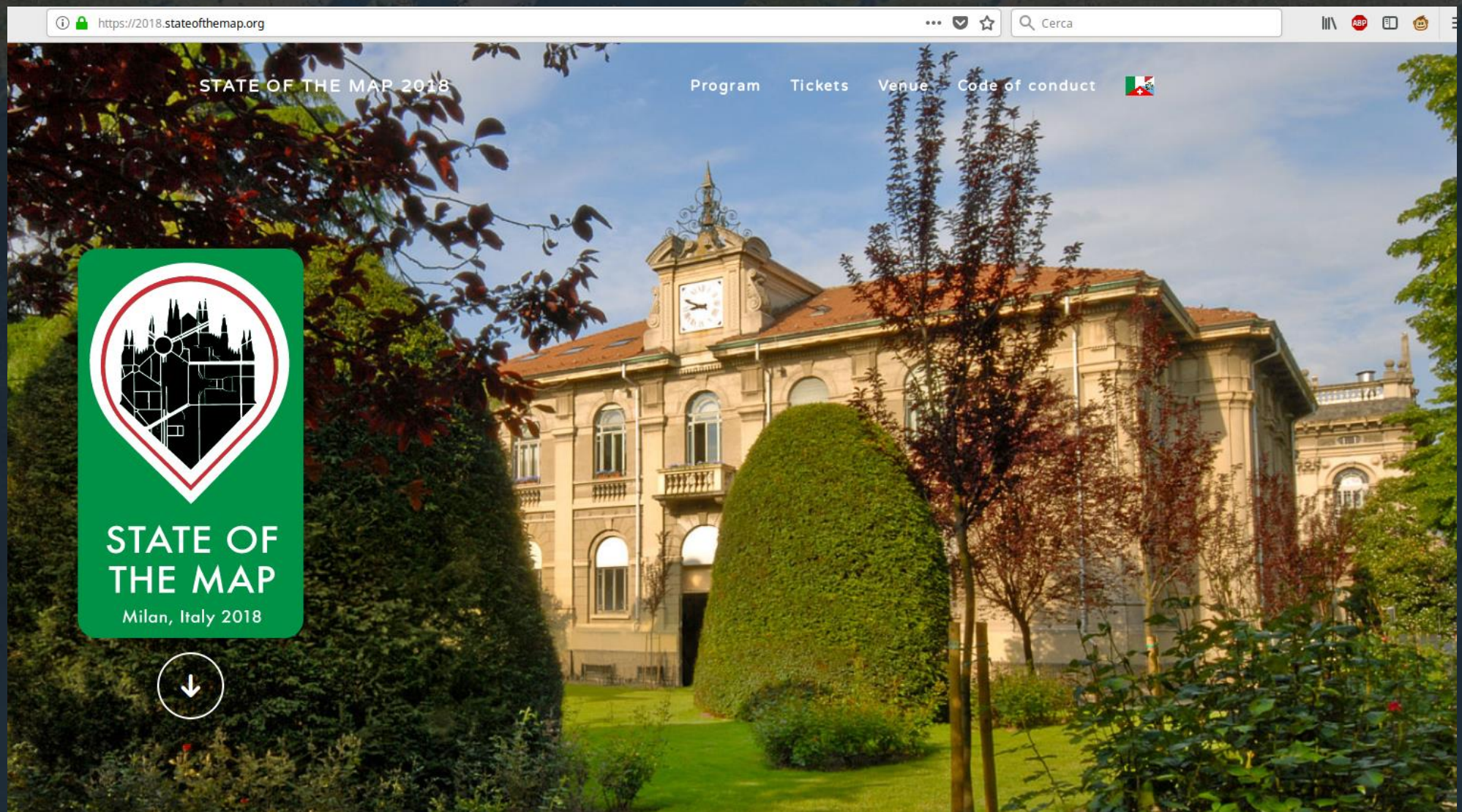
12





# What we are doing

28 – 30 July, the next global OpenStreetMap meeting in Milan





# Thanks for your kindly attention

The simple rule in Openstreetmap are:

- Don't copy from data or maps not OdbL compatible
- Have fun

Alessandro Palmas

Project manager OpenStreetMap for Wikimedia Italia



@Ale\_Zena\_IT

This presentation is released in

