

Calculating Line Lengths and Statistics

QGIS Tutorials and Tips



Author

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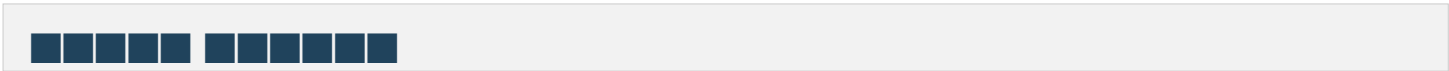
<http://google.com/+UjavalGandhi>

Translations by

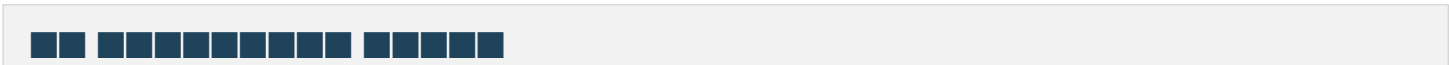
Marina Pavlova Ilya Trofimov Fayçal Fatihi



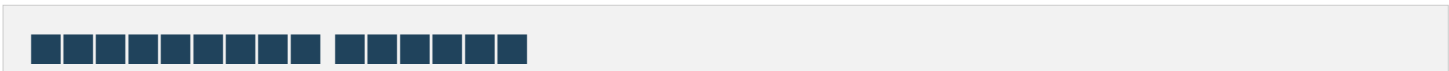
■ QGIS – **Open Source GIS Software**. It is a free and open-source desktop geographic information system (GIS) application. It can view, edit, and analyze spatial data. It supports various data formats and has a wide range of plugins for additional functionality.



THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE BY THE MARKINGS.

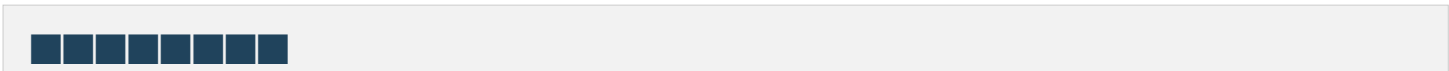


- [illegible]

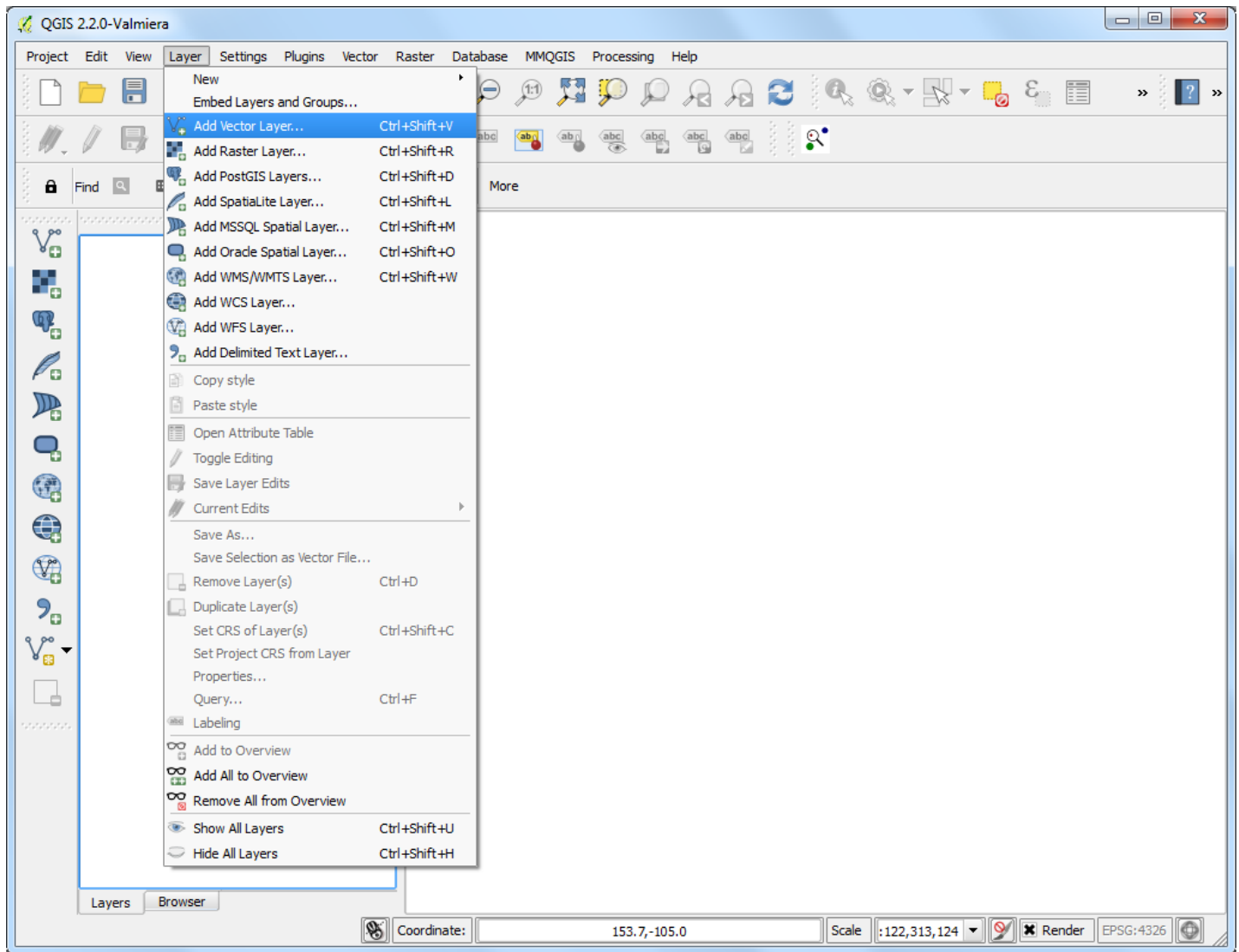


Natural Earth 

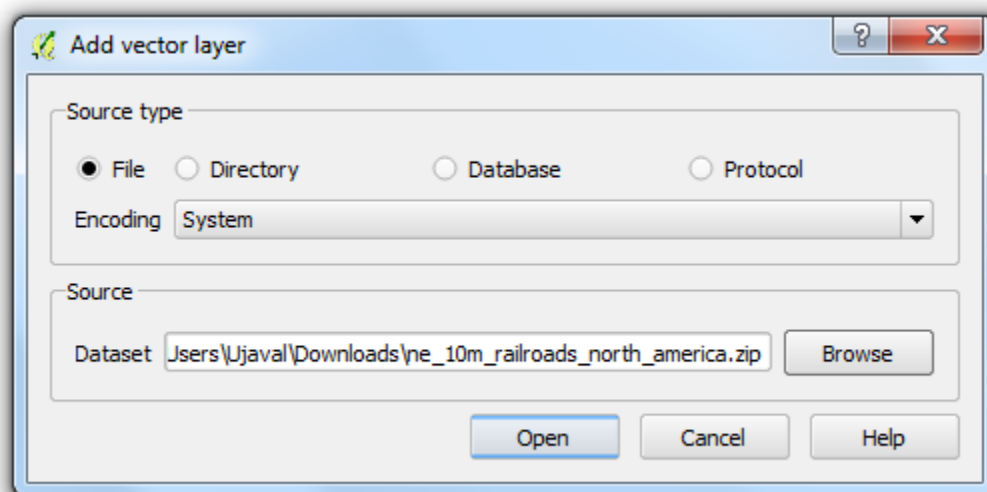
■■■■■■■■■■ ■■■■■■: [NATURALEARTH]



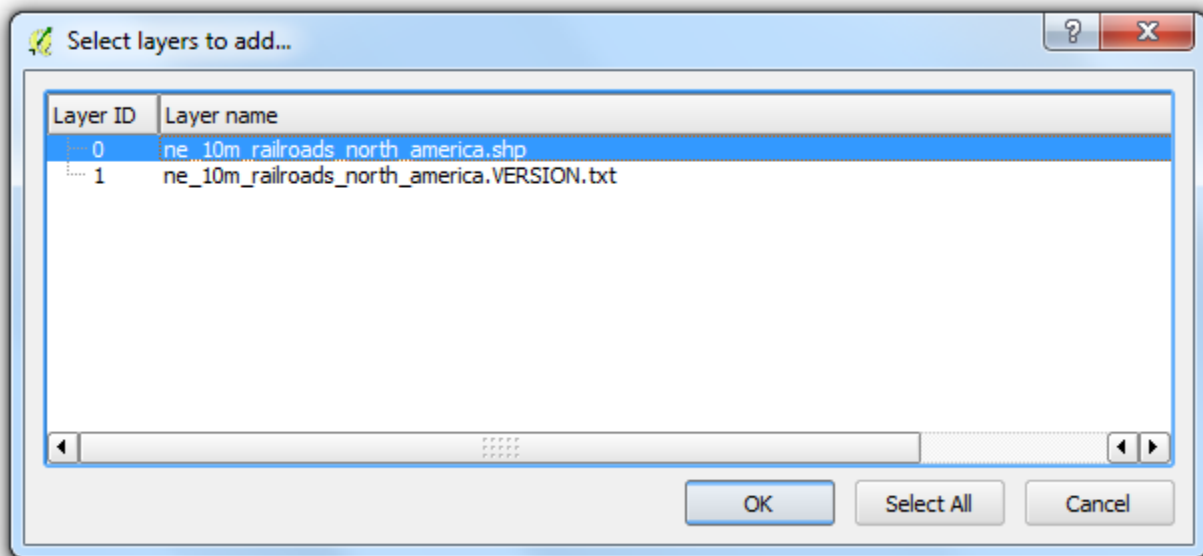
1. ■■■■■■■■■■ ■ ■■■■ ■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■.



2. ■■■■■■■■ ■■■■■■■■■■ ■■■■■■ ne_10m_railroads_north_america.zip ■
 ■■■■■■■■ ■■■.



3. ne_10m_railroads_north_america.shp.



4. [REDACTED] [REDACTED] [REDACTED], [REDACTED] [REDACTED], [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]. [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED], [REDACTED]
[REDACTED] [REDACTED], [REDACTED] [REDACTED] [REDACTED]. [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED].

Attribute table - ne_10m_railroads_north_america :: Features total: 1127, filtered: 1127, selected: 0

Select features using an expression

	scalerank		uid	add	natrscale	continent
0	8	Railroad	1506	0	0	North America
1	9	Railroad	1606	1	5	North America
2	8	Railroad	1706	0	0	North America
3	8	Railroad	1806	0	0	North America
4	8	Railroad	1906	0	0	North America
5	8	Railroad	2006	0	0	North America
6	8	Railroad	2106	0	0	North America
7	9	Railroad	2206	1	5	North America
8	8	Railroad	2306	0	0	North America
9	8	Railroad	2406	0	0	North America
10	8	Railroad	2506	0	0	North America
11	8	Railroad	2606	0	0	North America
12	8	Railroad	2706	0	0	North America
13	8	Railroad	2806	0	0	North America
14	9	Railroad	2906	1	5	North America
15	9	Railroad	3006	1	5	North America
16	8	Railroad	3106	0	0	North America
17	8	Railroad	3206	0	0	North America
18	8	Railroad	3306	0	0	North America
19	8	Railroad	3506	0	0	North America
20	8	Railroad	3606	0	0	North America
21	8	Railroad	3706	0	0	North America
22	8	Railroad	3806	0	0	North America
23	9	Railroad	3906	1	5	North America

Show All Features

7. **Task 7: Filtering features by country**. The task is to filter the features by country. The country is stored in the attribute 'sov_a3'. The task is to filter the features where 'sov_a3' is equal to 'USA'. The task is to filter the features where 'sov_a3' is equal to 'USA'.



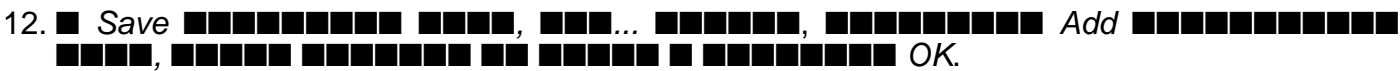
8. ■ ■■■■■■■■ ■■■■ QGIS ■■ ■■■■■■■■, ■■■ ■■■■■ ■■■■■ ■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■.



9. `ne_10m_railroads_north_america`



11. **Save the layer as a shapefile, using the following settings:**
 Format: ESRI Shapefile
 Save as: C:/Users/Ujaval/Downloads/usa_railroads.shp
 Encoding: System
 CRS: Layer CRS
 Symbology export: No symbology
 Scale: 1:50000
 Skip attribute creation: ☐
 Add saved file to map: ☐
 More Options >>





13. The `usa_railroads` layer is saved as `usa_railroads.shp` in the `C:/Users/Ujaval/Downloads/` directory. The `usa_railroads` layer is added to the map. The `ne_10m_railroads_north_america` layer is also added to the map. The `usa_railroads` layer is selected in the Layers panel. The `usa_railroads` layer is visible on the map.



14. ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■ ■■ ■■■■ usa_railroads ■ ■■■■■■■■■■ *Open*
 ■■■■■■■■■■ ■■■■■■■■■■.



17. **Attribute**, **Toggle**, **length_km**



19. **Input** `usa_railroads`. **Target** `length_km` **OK**. **Sum** `length_km` - **Sum** `length_km`.

Note

The `Basic statistics` tool is used to calculate the sum of the values for each attribute in the input layer. In this case, the `length_km` attribute is selected. The result is a table with one row and one column, showing the total length of the railroads in kilometers.

Basics statistics

Input Vector Layer
usa_railroads

☐ Use only selected features

Target field
length_km

Statistics output

Parameter	Value
Mean	127.751569149
StdDev	125.80562595
Sum	96069.18
Min	0.01
Max	936.6
N	752.0
CV	0.984767755...
Number of unique values	743

Press Ctrl+C to copy results to the clipboard

0% OK Close