

# Calculating Line Lengths and Statistics

QGIS Tutorials and Tips



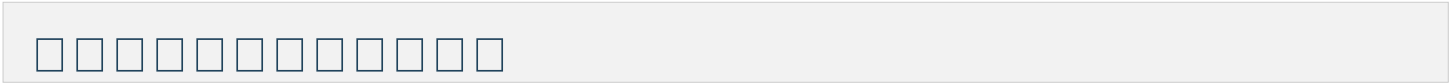
Author

Ujaval Gandhi

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

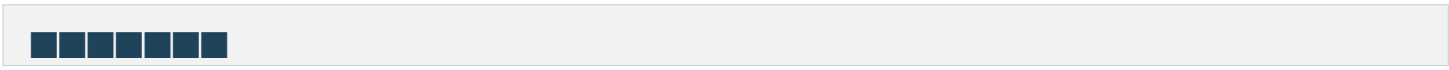
Translations by

Whyjay Zheng



(Unfinished) QGIS □□□□□□□□□□□□□□□□□□□□□□

□□□□□□□□ shapefile □□□□□□□□□□



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**Natural Earth** □□□□□□□□ □□ □□□□□□□□ □□□□□□□□

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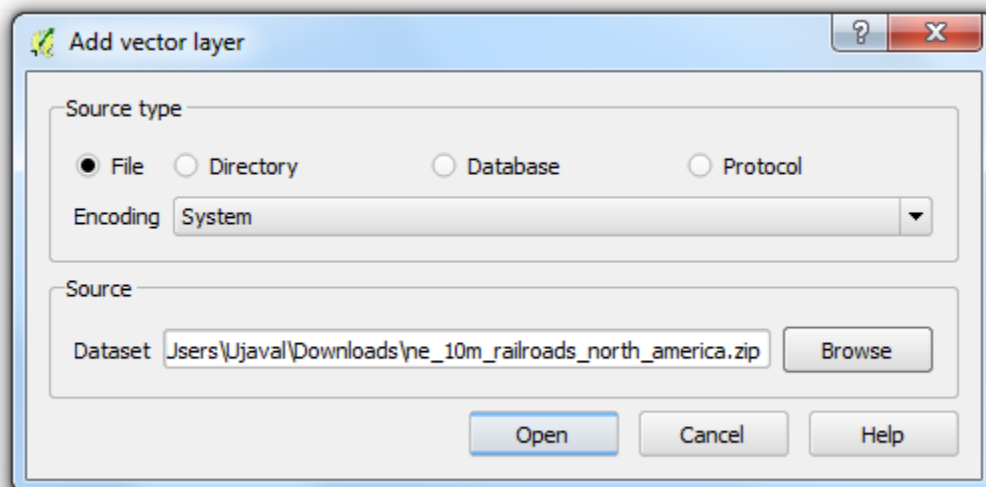
ne\_10m\_railroads\_north\_america.zip

□□□□ [NATURALEARTH]

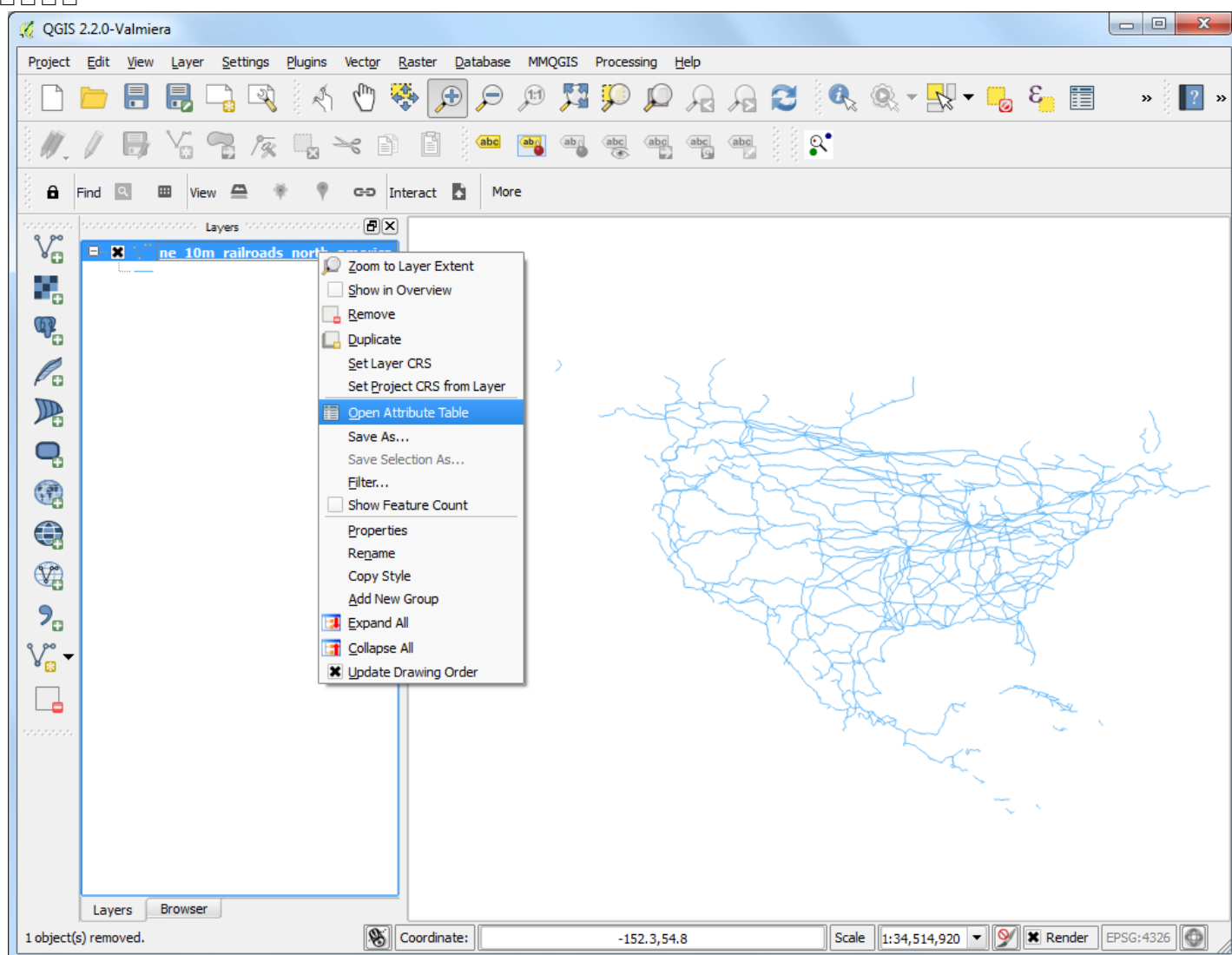
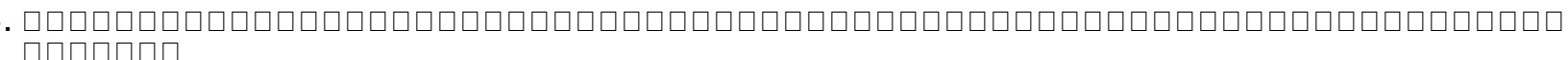
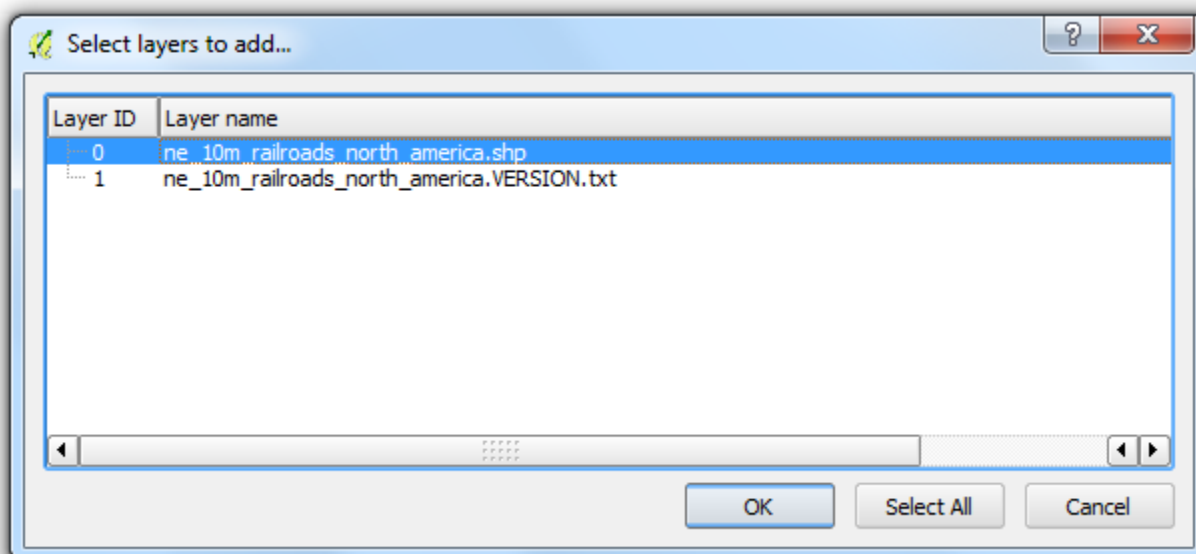
1. □□ □□ ▶ □□□□□□□□



2. `ne_10m_railroads_north_america.zip`



3. `ne_10m_railroads_north_america.shp`



sov\_a3

	scalerank	featureda	sov_a3	uident	add	natlscale	continent
	8	Railroad	USA	1506	0	0	North America
	9	Railroad	USA	1606	1	5	North America
	8	Railroad	USA	1706	0	0	North America
	8	Railroad	USA	1806	0	0	North America
	8	Railroad	USA	1906	0	0	North America
	8	Railroad	USA	2006	0	0	North America
	8	Railroad	USA	2106	0	0	North America
	9	Railroad	USA	2206	1	5	North America
	8	Railroad	USA	2306	0	0	North America
	8	Railroad	USA	2406	0	0	North America
	8	Railroad	USA	2506	0	0	North America
	8	Railroad	USA	2606	0	0	North America
	8	Railroad	USA	2706	0	0	North America
	8	Railroad	USA	2806	0	0	North America
	9	Railroad	USA	2906	1	5	North America
	9	Railroad	USA	3006	1	5	North America
	8	Railroad	USA	3106	0	0	North America
	8	Railroad	USA	3206	0	0	North America
	8	Railroad	USA	3306	0	0	North America
	8	Railroad	USA	3506	0	0	North America
	8	Railroad	USA	3606	0	0	North America
	8	Railroad	USA	3706	0	0	North America
	8	Railroad	USA	3806	0	0	North America
	9	Railroad	USA	3906	1	5	North America

6.   □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

Attribute table - ne\_10m\_railroads\_north\_america :: Features total: 1127, filtered: 1127, selected: 0

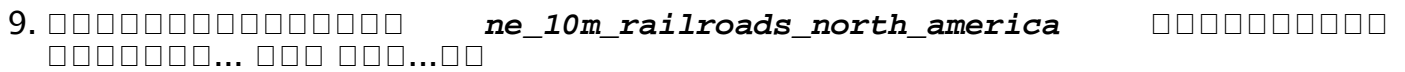
Select features using an expression

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

Show All Features

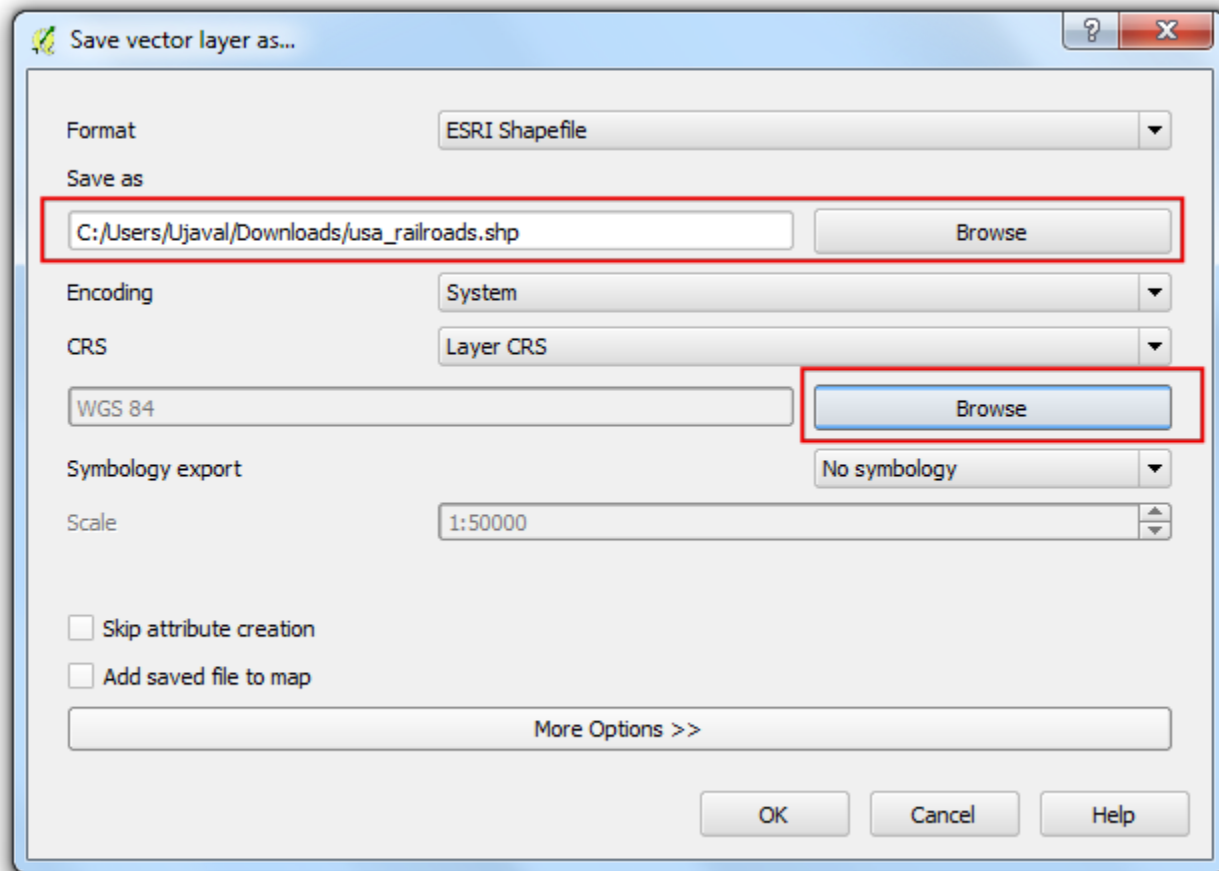
7. `sov_a3` `"sov_a3" = 'USA'`



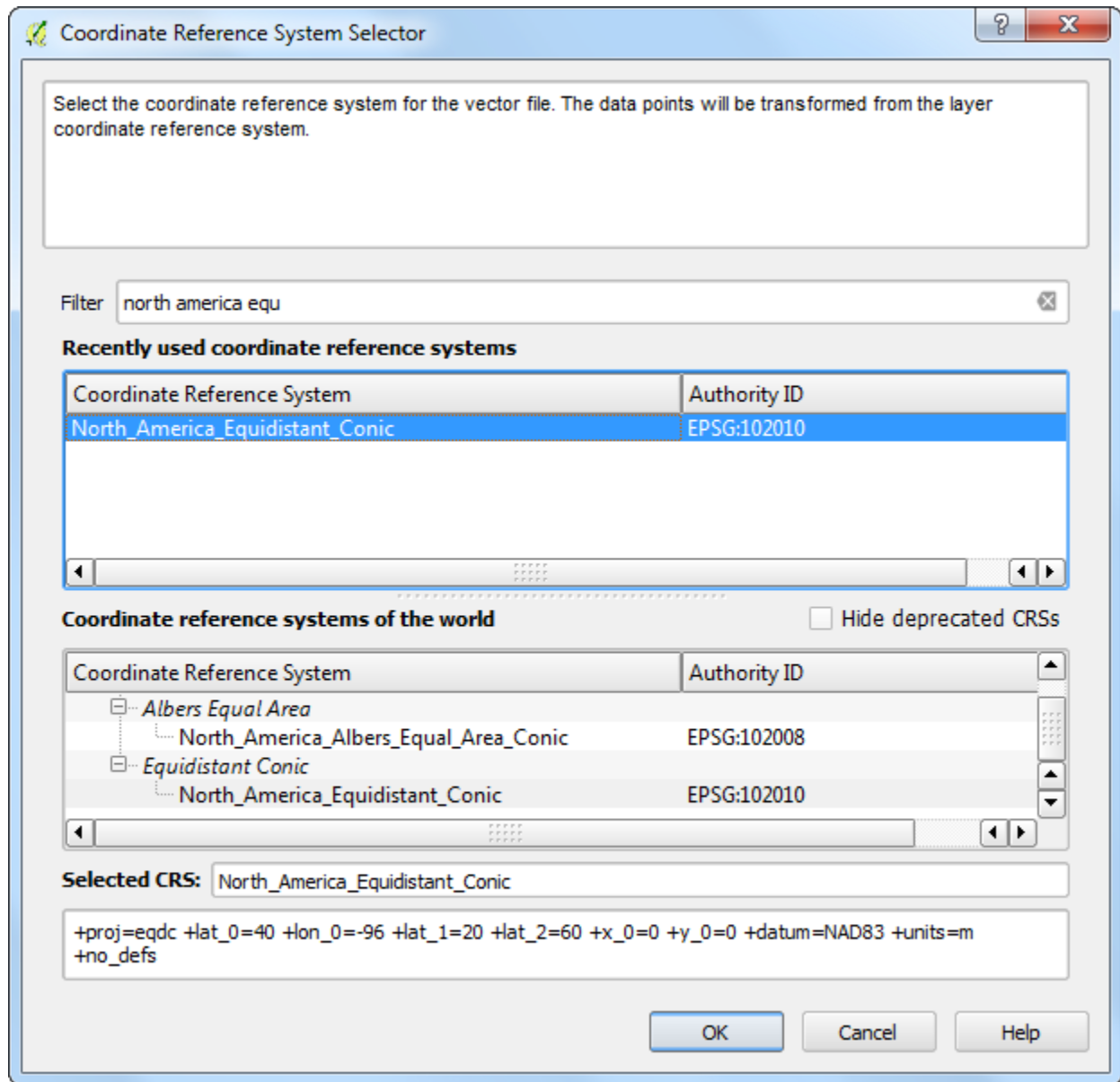




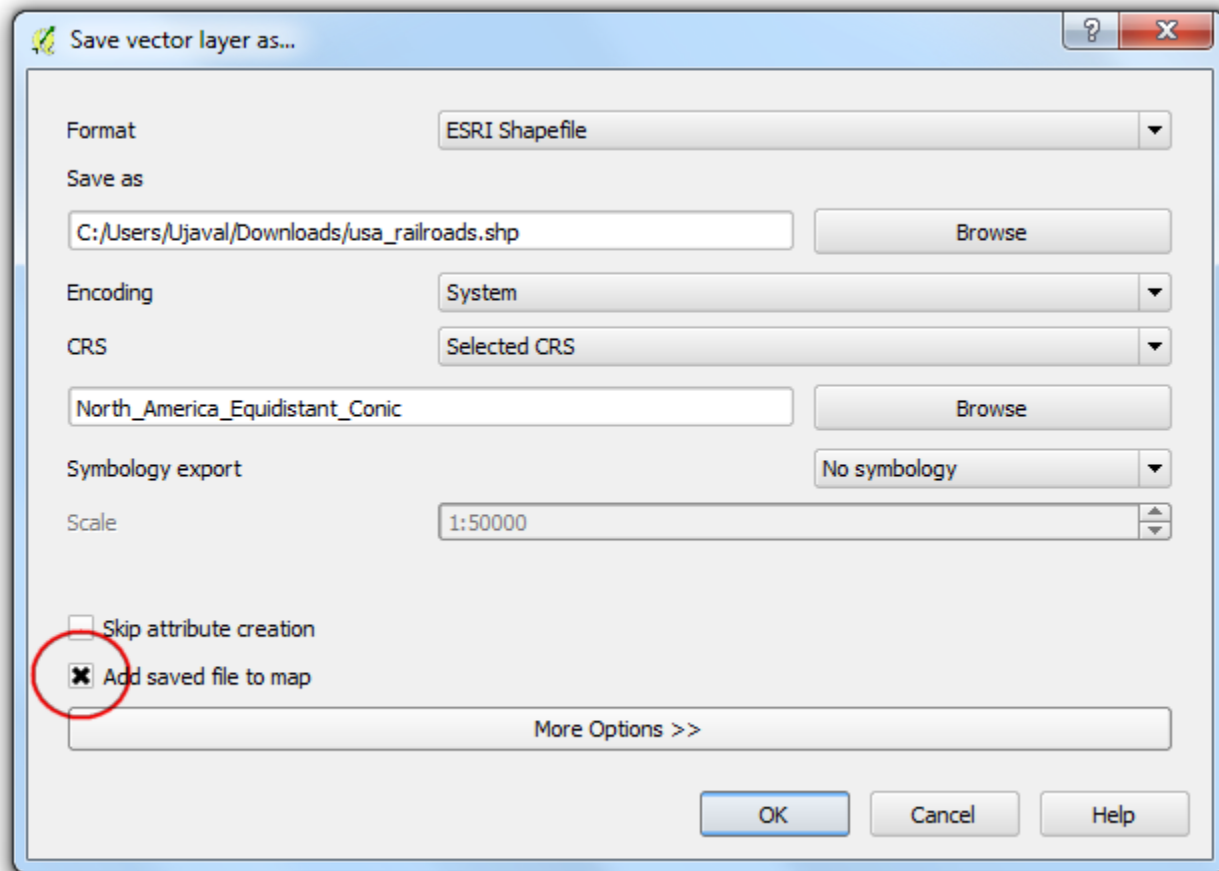




11. `QGIS -> Project -> Properties -> CRS -> North America Equidistant Conic -> EPSG:102010`

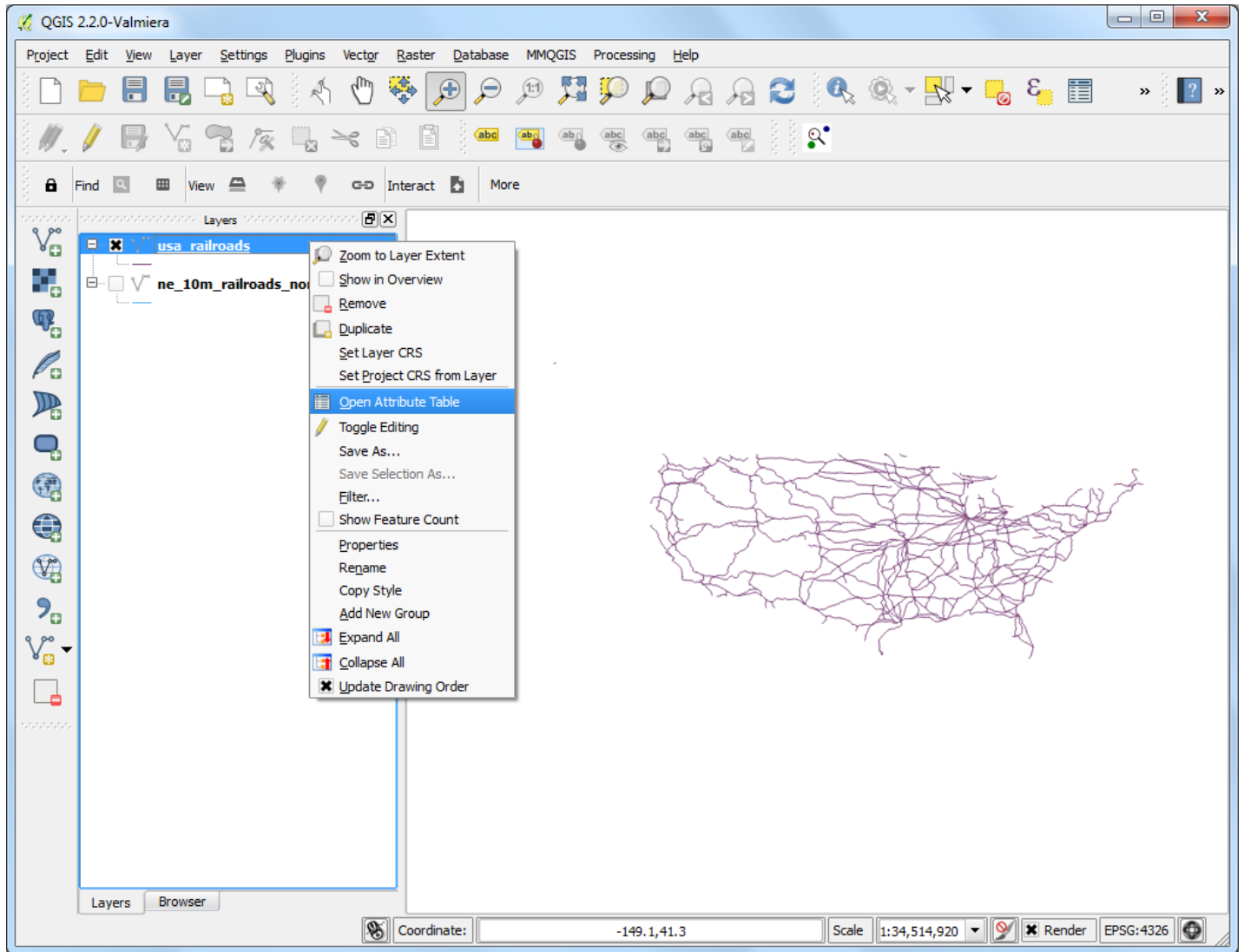


12. `guiLabel: 'Coordinate Reference System Selector'`



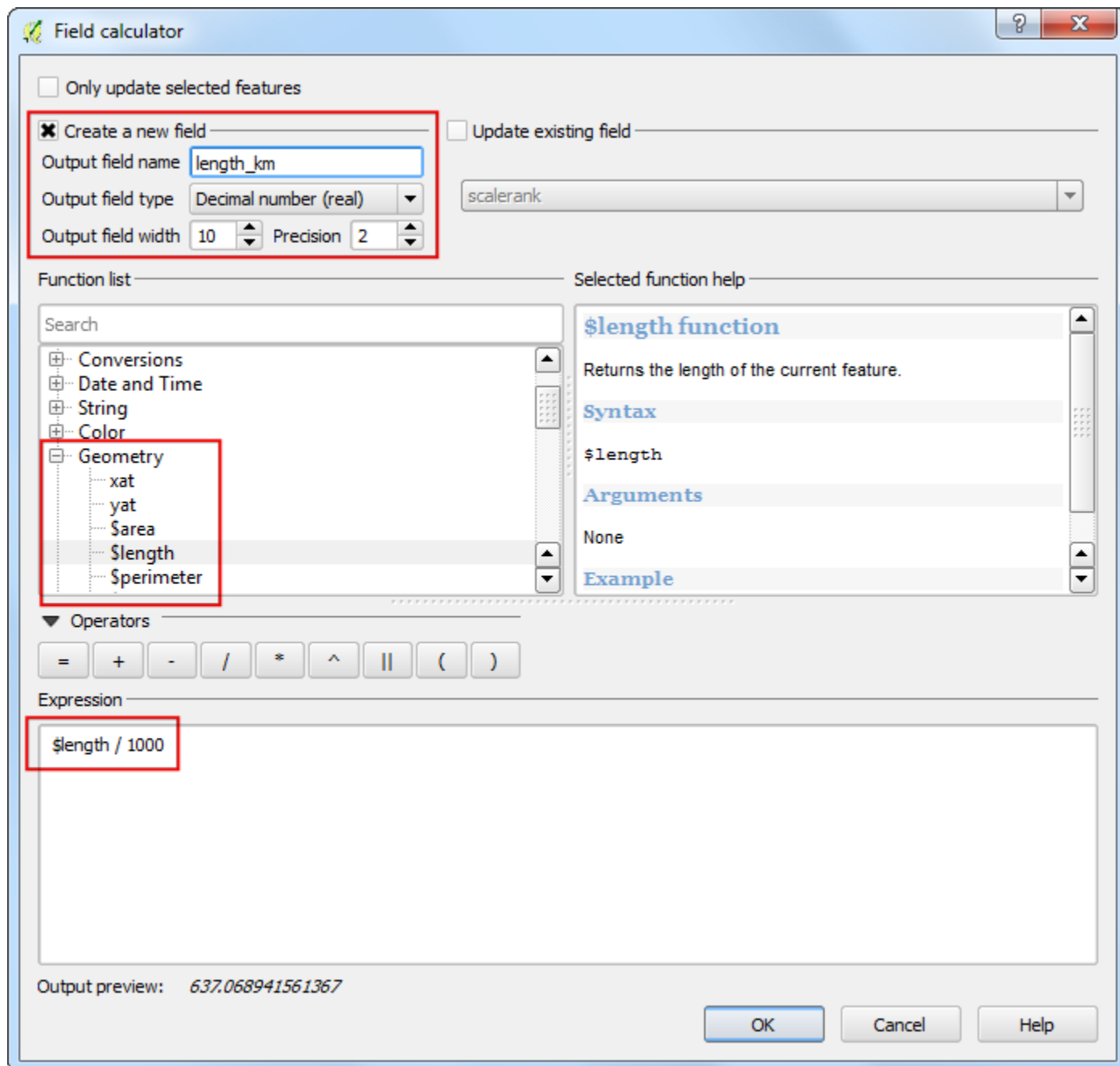
13. In QGIS, save the *usa\_railroads* layer as *usa\_railroads\_ne\_10m\_railroads\_north\_america* and add it to the map.





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17. □□ □□□□□□ length\_km □□□□□□□□□□ □□□□□ □□□□□□□□□□







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