

# Points in Polygon Analysis

QGIS Tutorials and Tips



Author

Ujaval Gandhi

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

Translations by

SongHyun Choi

□□□□□□ □ □□

GIS□ □□ □□ □□□ □□□ □□ □□□□ □□□□. □□ □□□□ □□ □□□ □□ □□□ □□ □□ □□□□ □□ □□□ □ □□□ □□□□. □□□ □□□ □□□ **\*\*Points-in-Polygon\*\***□□□□. □□□ □□□□ □□□ □□□□ □□□ □□□ □□□ □□ □□ □□ □□ □□ □□ □□□□ □□□□ □□□□ □□□ □□ □□□□□ □□□ □ □□□□.

□□ □□

□□□□ □□□ □□ □□ □□□□□□ □□□□ □□□□, □□ □□□ □□ □□ □□□ □□□□ □□□□ □□□□□.

□□□ □□

□□ □□□ □□□ □□□□ □□□□□ NOAA's National Geophysical Data Center□ `Significant Earthquake Database <<http://www.ngdc.noaa.gov/nndc/struts/form?t=101650&s=1&d=1>>`\_□ □□□□□. `tab-delimited earthquake data <[http://www.ngdc.noaa.gov/nndc/struts/results?type\\_0=Exact&query\\_0=\\$ID&t=101650&s=13&d=189&dfn=signif.txt](http://www.ngdc.noaa.gov/nndc/struts/results?type_0=Exact&query_0=$ID&t=101650&s=13&d=189&dfn=signif.txt)>`\_□ □□□□ □□□.

Natural Earth□ Admin 0 – Countries □□□□□ □□□ □□□□. `countries <[http://www.naturalearthdata.com/http://www.naturalearthdata.com/download/10m/cultural/ne\\_10m\\_admin\\_0\\_countries.zip](http://www.naturalearthdata.com/http://www.naturalearthdata.com/download/10m/cultural/ne_10m_admin_0_countries.zip)>`\_□ □□□□ □□□.

□□□ □□: [NGDC] [NATURALEARTH]

□□

1. □□ □□□ --> □□□□ □□□ □□□ □□□ □□ :menuselection: `Layer --> Add Delimited Text Layer` □ □□ □□□□□ `signif.txt` `□□□ □□□□.



2. Open the 'Add Delimited Text Layer' dialog box. In the 'File format' dropdown, select 'Tab'. In the 'X field' dropdown, select the field containing the X coordinates. In the 'Y field' dropdown, select the field containing the Y coordinates. Click the 'OK' button to add the layer.

### Note

The QGIS interface is designed to be user-friendly and intuitive. It includes a variety of tools and options to help you work with your data. The 'Add Delimited Text Layer' dialog box is a key component for importing data into QGIS.





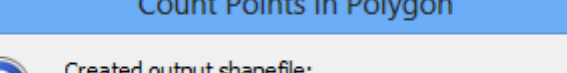
4. □□ □□ □□□ QGIS □ □□□□. □□ □□ □□□ □□□□. □□ □□ □□ --> □□ □□ □□  
 Layer ▸ Add Vector Layer □ □□□□. □□□□□  
 ne\_10m\_admin\_0\_countries.zip □□□ □□ □□ :guilabel: `Open` □ □□□□. □□□  
 □□□ □□ :guilabel: `Select layers to add...` □□□□□ □□□□□  
 ne\_10m\_admin\_0\_countries.shp □ □□□□.



The screenshot shows the QGIS 2.0.1-Dufour application window. The 'Vector' menu is open, and the 'Points in polygon' option is highlighted. The map canvas displays a world map with yellow landmasses and numerous green points. The 'Layers' panel on the left shows two layers: 'ne\_10m\_admin\_0\_count...' and 'signif'. The status bar at the bottom indicates the coordinate system is EPSG:4326 and the scale is 263396668.

**Note**

OK□ □□ □ □□□□□. QGIS□ □□□ □□□□□□ □□ 10□□ □□□ □ □□□□.





9. 〇〇 〇〇〇〇〇 〃 〃 PNTCNT 〃 〃 〇〇 〇〇〇 〇〇〇〇 〇〇〇〇 〇〇〇. 〇〇〇 〇 〇〇〇〇〇 〇〇〇  
 〇〇〇〇〇〇〇 〇〇 〇〇〇 〇〇〇 〇〇〇〇.

Attribute table - earthquakes\_per\_country :: Features total: 255, filtered: 255, selected: 0

|    | REGION_WB          | NAME_LEN | LONG_LEN | ABBREV_LEN | TINY   | HOMEPART | PNTCNT             |
|----|--------------------|----------|----------|------------|--------|----------|--------------------|
| 0  | Latin America ...  | 5.00     | 5.00     | 5.00       | 4.00   | -99.00   | 0.000000000000...  |
| 1  | South Asia         | 11.00    | 11.00    | 4.00       | -99.00 | 1.00     | 57.000000000000... |
| 2  | Sub-Saharan Af...  | 6.00     | 6.00     | 4.00       | -99.00 | 1.00     | 0.000000000000...  |
| 3  | Latin America ...  | 8.00     | 8.00     | 4.00       | -99.00 | -99.00   | 0.000000000000...  |
| 4  | Europe & Centr...  | 7.00     | 7.00     | 4.00       | -99.00 | 1.00     | 44.000000000000... |
| 5  | Europe & Centr...  | 5.00     | 13.00    | 5.00       | 5.00   | -99.00   | 0.000000000000...  |
| 6  | Europe & Centr...  | 7.00     | 7.00     | 4.00       | 5.00   | 1.00     | 0.000000000000...  |
| 7  | Middle East & ...  | 20.00    | 20.00    | 6.00       | -99.00 | 1.00     | 0.000000000000...  |
| 8  | Latin America ...  | 9.00     | 9.00     | 4.00       | -99.00 | 1.00     | 20.000000000000... |
| 9  | Europe & Centr...  | 7.00     | 7.00     | 4.00       | -99.00 | 1.00     | 14.000000000000... |
| 10 | East Asia & Pac... | 14.00    | 14.00    | 9.00       | 3.00   | -99.00   | 0.000000000000...  |
| 11 | Antarctica         | 10.00    | 10.00    | 4.00       | -99.00 | 1.00     | 0.000000000000...  |
| 12 | East Asia & Pac... | 23.00    | 27.00    | 7.00       | -99.00 | -99.00   | 0.000000000000...  |
| 13 | Sub-Saharan Af...  | 22.00    | 35.00    | 10.00      | 2.00   | -99.00   | 0.000000000000...  |
| 14 | Latin America ...  | 17.00    | 19.00    | 6.00       | 4.00   | 1.00     | 0.000000000000...  |
| 15 | East Asia & Pac... | 9.00     | 9.00     | 4.00       | -99.00 | 1.00     | 9.000000000000...  |
| 16 | Europe & Centr...  | 7.00     | 7.00     | 5.00       | -99.00 | 1.00     | 4.000000000000...  |
| 17 | Europe & Centr...  | 10.00    | 10.00    | 4.00       | -99.00 | 1.00     | 15.000000000000... |
| 18 | Sub-Saharan Af...  | 7.00     | 7.00     | 4.00       | -99.00 | 1.00     | 1.000000000000...  |
| 19 | Europe & Centr...  | 7.00     | 7.00     | 5.00       | -99.00 | 1.00     | 2.000000000000...  |
| 20 | Sub-Saharan Af...  | 5.00     | 5.00     | 5.00       | -99.00 | 1.00     | 1.000000000000...  |
| 21 | Sub-Saharan Af...  | 12.00    | 12.00    | 4.00       | -99.00 | 1.00     | 0.000000000000...  |

Show All Features

10. 00 00 00 ``PNTCNT`` 000 0000 00 00 00 000 00 0000. 0000000 0000 00  
 ``PNTCNT`` 00 20 000000. 000 0000 000 000 00 00000 00 0000 00000.







2000 年 1 月 1 日 至 2000 年 12 月 31 日 的 地震 数据。 数据 来源 为 美国 地质 调查 局 (USGS) 的 全球 地震 目录 (Global Earthquake Catalogue)。