

# Importing Spreadsheets or CSV files

QGIS Tutorials and Tips



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■■■■■ ■■■■■ ■■■ CSV-■■■■■

[illegible][illegible]

Response	Percentage
Yes	85%
No	15%

NOAA's National Geophysical Data Center produces a great dataset of all significant earthquakes since 2150 BC. [Learn more.](#)

Download [Significant Earthquake Database](#) text file.

■■■■■■■■ ■■■■■■: [NGDC]

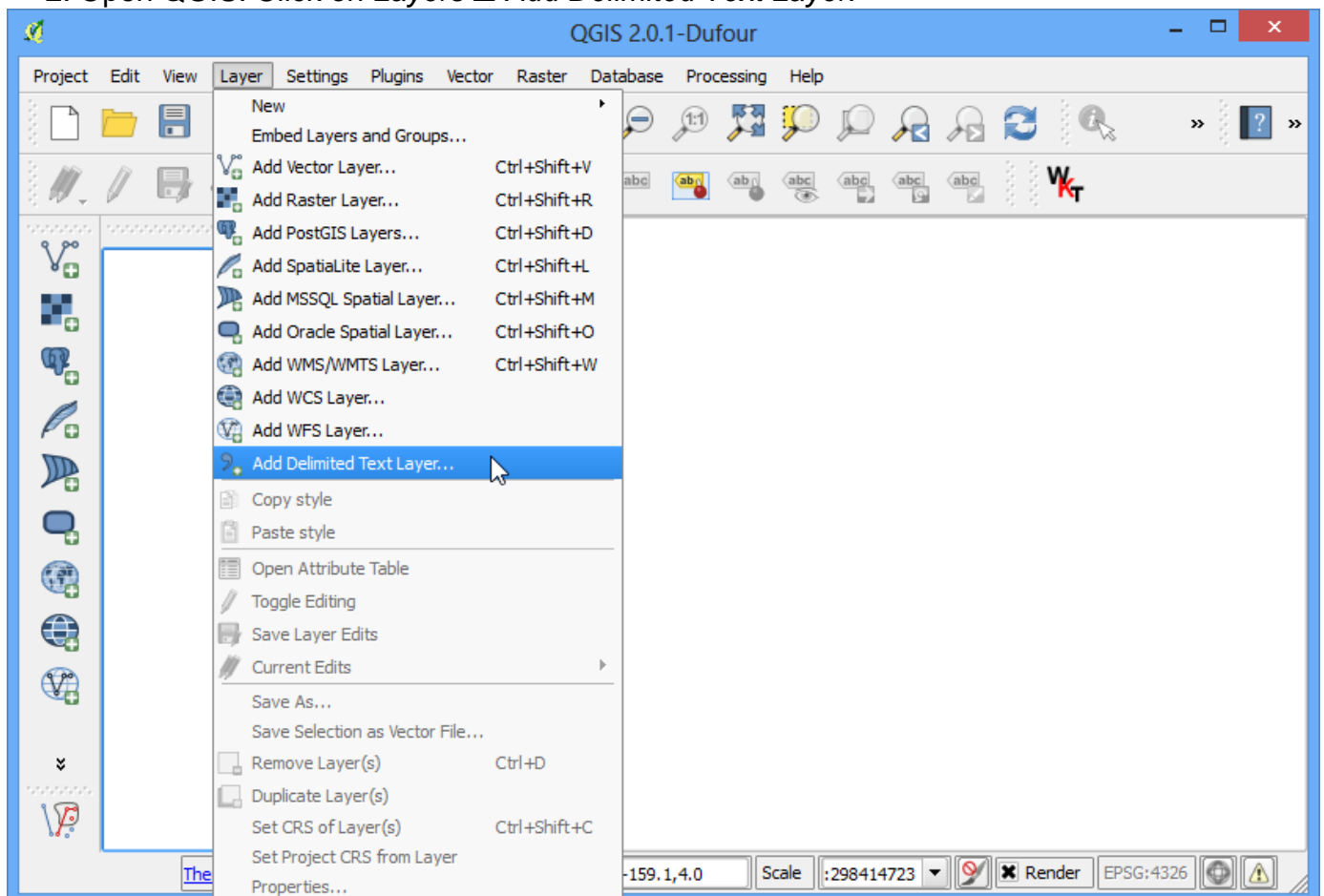
1. Examine your tabular data source. To import this data to QGIS, you will have to save it as a text file and need at least 2 columns which contain the X and Y coordinates. If you have a spreadsheet, use *Save As* function in your program to save it as a *Tab Delimited File* or a *Comma Separated Values (CSV)* file. Once you have the data exported this way, you can open it in a text editor such as Notepad to view the contents. In case of the Significant Earthquake Database, the data already comes as a text file which contains latitude and longitude of the earthquake centers along with other related attributes. You will see that each field is separated by a TAB.

signif.txt - Notepad

STATE	LOCATION_NAME	LATITUDE	LONGITUDE	REGION_CODE	DEATHS	DEATHS_DESCRIPTION
10	ISRAEL	ISRAEL: ARIHA (JERICHO)	31.500	35.300	140	
		9713	Tsu	-480	9	29
		1				2
103.900	30					
GANSU PROVINCE:	LONGXI	34.900	104.700	30	3	
		3	41	23		
		UKRAINE	UKRAINE: BLACK SEA	44.700	51	57
		1		67		155
		3	1001	4		
					79	340
	350	10				
		2				
	438					
	119		477	9	25	
			139	Tsu	551	7
			147	9	558	12
					5.5	25
549	9	12				
	715					
175		745	6	5		7.9
2		3		187		
				778		
	199		811			
844	9	18				
	219		853			
857	4					

Ln 1, Col 1

2. Open QGIS. Click on **Layers** ■ **Add Delimited Text Layer**.



3. In the *Create a Layer from a Delimited Text File* dialog, click on *Browse* and specify the path to the text file you downloaded. In the *File format* section, select *Custom delimiters* and check *Tab*. The *Geometry definition* section will be auto-populated if it finds a suitable X and Y coordinate fields. In our case they are *LONGITUDE* and *LATITUDE*. You may change it if the import selects the wrong fields. Click *OK*.

## Note

It is easy to confuse X and Y coordinates. Latitude specifies the north-south position of a point and hence it is a **Y** coordinate. Similarly Longitude specifies the east-west position of a point and it is a **X** coordinate.

**Create a Layer from a Delimited Text File**

File Name:  

Layer name:  Encoding:

File format: ☐ CSV (comma separated values) ☒ Custom delimiters ☐ Regular expression delimiter

☐ Comma ☒ Tab ☐ Space ☐ Colon ☐ Semicolon

Other delimiters:  Quote:  Escape:

Record options: Number of header lines to discard:  ☒ First record has field names

Field options: ☐ Trim fields ☐ Discard empty fields ☐ Decimal separator is comma

Geometry definition: ☒ Point coordinates ☐ Well known text (WKT) ☐ No geometry (attribute only table)

X field:  Y field:  ☐ DMS coordinates

Layer settings: ☒ Use spatial index ☐ Use subset index ☐ Watch file

	I_D	FLAG_TSUNAMI	YEAR	MONTH	DAY	HOUR	MINUTE	SECOND	FOCAL_DEPTH	EQ_MAG_MW	EQ_MAG
1	1		-2150								
2	3		-2000						18		7.1
3	2	Tsu	-2000								
4	8		-1566								
5	11		-1450								

4. You may see some errors displayed in the next dialog. The errors in this file are mainly due to missing X or Y fields. You may examine these errors and fix the problems in your source file. For this tutorial, you may ignore these errors.



5. Next, a *Coordinate Reference System Selector* will ask you to select a coordinate reference system. Since the earthquake coordinates are in latitudes and longitudes, you should select *WGS 84*. Click *OK*.



6. You will now see that the data will be imported and displayed in the QGIS canvas.

