

TXT2line



Rationale:

This tool converts ASCII text files (.txt) into vector lines. The files are often output from Qimera or similar program in text form. The data needs to have columns Latitude and Longitude values in decimal degrees (or X and Y values in some map known projection and datum system), together with a column of values for labelling (e.g. ping number or date&time). The tool will look in a single directory for all the .txt files and try to convert all of them into lines. It will output a shapefile of the data line(s) in a .shp file. The input files will need a top row of column descriptors.

Usage:

There are several parameters required for this tool:

- A folder or directory where the input .txt files can be found. This is defined by clicking on the “Browse...” button and selecting the appropriate directory. It will take a couple of seconds for the directory to be found and searched. The files will be displayed in the box below
- The user can decide whether to convert all the files displayed or only one. The files can be selected by a mouse click.
- The Latitude (Y), and Longitude (X), will be populated with the top line values of the first .txt file found. If any field is incorrect for usage the pulldown arrows will allow the user to choose more appropriate columns. If multiple files are to be converted they must have the same fields as the first file.
- The input values for X and Y need a co-ordinate reference system (CRS) to be defined. The “Select Input CRS...” button will open a new window and the user can select the appropriate CRS of the input file. Latitude and Longitude with WGS84 datum is default (and known as EPSG: 4326) and if left as “No CRS selected” this projection will be assumed. There are thousands of possible projections and datums available.
- The output points and grid also need a co-ordinate reference system (CRS) to be defined. The “Select Output CRS...” button will open a new window and the user can select the appropriate CRS of the output files. Latitude and Longitude with WGS84 datum are default (and known as EPSG: 4326) and if left as “No CRS selected” this projection will be assumed. It is recommended that a meter-based projection system and datum is used for outputs, such as UTM (Universal Transverse Projection) for the appropriate longitude zone.
- When the “OK” button is clicked processing may take a couple of minutes depending on the file sizes involved.

Output is one vector shapefile (for the input .txt file or files) and have default filename as the input files except with filetype of .shp. They will be put in the same directory as the original .txt file.

Example:

Batch Convert txt nav to lines

Input txt nav Folder

C:/Users/tlb/Documents/Data/Tweed/Tweed1/Export

Browse...

27 files loaded

☐ Convert all files? or select one

C:/Users/tlb/Documents/Data/Tweed/Tweed1/Export\0025_20260729_120215_noline.0001_cog.txt
C:/Users/tlb/Documents/Data/Tweed/Tweed1/Export\0025_20260729_120215_noline.0002_cog.txt
C:/Users/tlb/Documents/Data/Tweed/Tweed1/Export\0027_20260729_130516_noline.0001_cog.txt
C:/Users/tlb/Documents/Data/Tweed/Tweed1/Export\0028_20260729_130533_noline.0001_cog.txt
C:/Users/tlb/Documents/Data/Tweed/Tweed1/Export\0029_20260729_130629_noline.0001_cog.txt

Latitude (Y) Field: Y

Longitude (X) Field: X

Select Input CRS...: EPSG:32630

Select Output CRS...: No CRS selected

Co-ordinate Reference Systems

Help OK Cancel

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where the imported top file looked like this:

```
#Date Time X,Y,Z
2026-07-29 13:15:42.065,552226.739,6173984.994,-0.840
2026-07-29 13:15:42.231,552226.650,6173985.082,-0.840
2026-07-29 13:15:42.398,552226.561,6173985.159,-0.840
2026-07-29 13:15:42.565,552226.478,6173985.236,-0.840
2026-07-29 13:15:42.731,552226.389,6173985.324,-0.840
2026-07-29 13:15:42.898,552226.307,6173985.401,-0.840
2026-07-29 13:15:43.065,552226.218,6173985.477,-0.840
2026-07-29 13:15:43.231,552226.135,6173985.566,-0.840
2026-07-29 13:15:43.398,552226.046,6173985.642,-0.840
2026-07-29 13:15:43.565,552225.957,6173985.730,-0.850
2026-07-29 13:15:43.731,552225.868,6173985.807,-0.850
2026-07-29 13:15:43.898,552225.786,6173985.895,-0.850
```