

# CSV2Grid



## Rationale:

This tool converts Comma Separated Values files (.csv) into raster grids. The files are often output from Excel 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 gridding (e.g. depth, temperature etc.) The tool will look in a single directory for all the .csv files and try to convert all of them into grids. The tool will calculate the best grid resolution from the input values – based on the median spacing between data points. It will also output a shapefile of the data points in the .csv 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 .csv 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 user can also decide whether the conversion of the .csv file(s) are to a shapefile of points or to a grid.
- The Latitude (Y), Longitude (X), and Attribute (Z) fields will be populated with the top line values of the first .csv 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 “Apply” button is clicked the progress bar will sweep across and log messages will appear in the dialog box below. Processing may take a couple of minutes depending on the file sizes involved.

Output is either one vector shapefile or raster grid (for the input .csv file or files) and have default filenames as the input files except with filetype of .shp and .img respectively. They will be put in the same directory as the original .csv file.

Example:

**Batch Convert CSV to Grids**

Input CSV Point Folder

C:/Users/tlb/Documents/Data/TestData Browse...

**6 files loaded**

☐ Convert all files? or select one ☒ Convert to Grids? (not points)

C:/Users/tlb/Documents/Data/TestData/Dictionary.csv  
C:/Users/tlb/Documents/Data/TestData/smalltestCSV.csv  
C:/Users/tlb/Documents/Data/TestData/testCSV.csv  
C:/Users/tlb/Documents/Data/TestData/BVI\_NOC\_GIS/Rule\_based\_data/Working/Dictionary/Atlant  
C:/Users/tlb/Documents/Data/TestData/BVI\_NOC\_GIS/Rule\_based\_data/Working/Dictionary/fagate

Latitude (Y) Field Longitude (X) Field Attribute (Z) Field

Lat (DD) Long (DD) Depth

Select Input CRS... No CRS selected Co-ordinate Reference Systems

Select Output CRS... No CRS selected

Ready

Log

Help OK Cancel

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