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

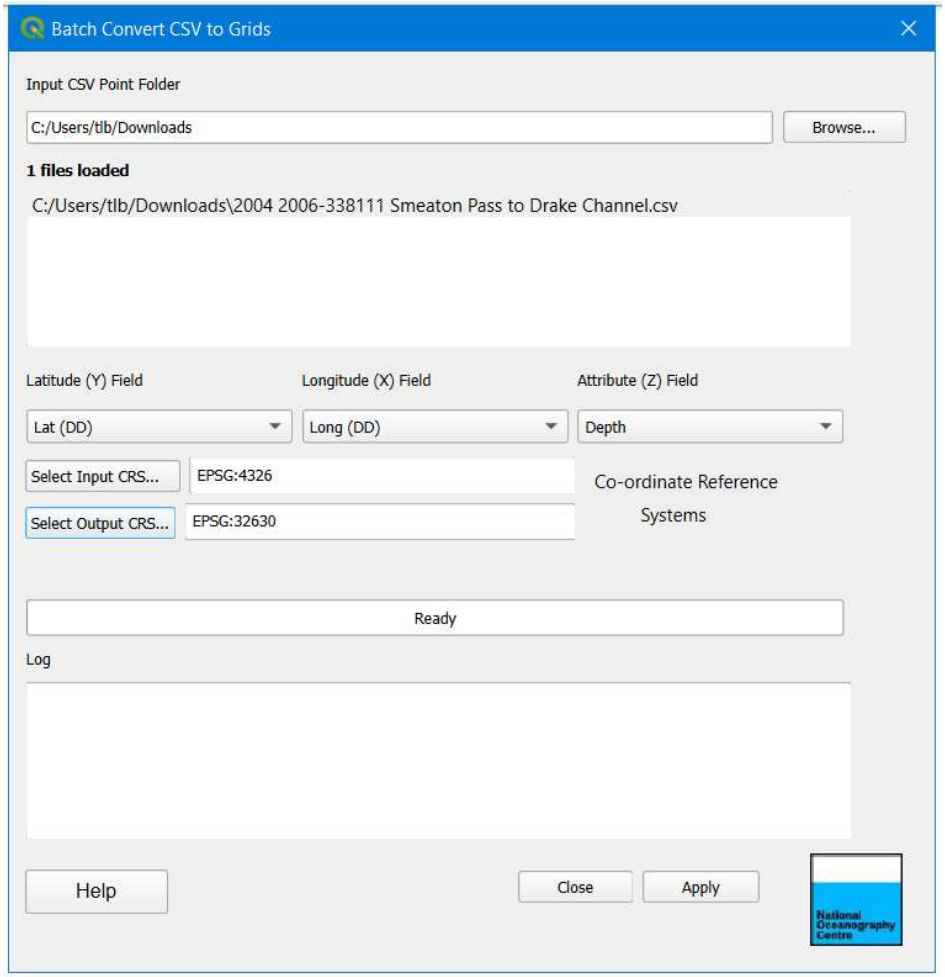
Usage:

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 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.
- 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 is 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 is 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 ake a couple of minutes depending on the file sizes involved.

Outputs are one vector shapefile and raster grid (for each input .csv file) and have default filenames as the input file 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/Downloads
Browse...
1 files loaded
C:/Users/tlb/Downloads\2004 2006-338111 Smeaton Pass to Drake Channel.csv
Latitude (Y) Field
Longitude (X) Field
Attribute (Z) Field
Lat (DD)
Long (DD)
Depth
Select Input CRS...
EPSG:4326
Co-ordinate Reference Systems
Select Output CRS...
EPSG:32630
Ready
Log
Help
Close
Apply
National Oceanography Centre