**Transform 2D – logical explanation**

Data structure:

The data is separated by 3 files:

* **Lines.csv** – A comma-separated values file containing columns of *x1*, *y1*, *x2* and *y2* which represent the x, y coordinates (x1, y2) of the beginning of the line, and the x, y coordinates (x2, y2) of the end of the line.
* **Curves.csv –** A comma-separated values file containing columns of *x1*, *y1*, *x2*, *y2*, *x3*, *y3*, *x4* and *y4* which represent a curve from x1, y1 to x4, y4 relying on x2, y2 and x3, y3.
* **Circles.csv** - A comma-separated values file containing columns of *x*, *y* and *r* which represent the x, y coordinates of the center of the circle, and the radius.

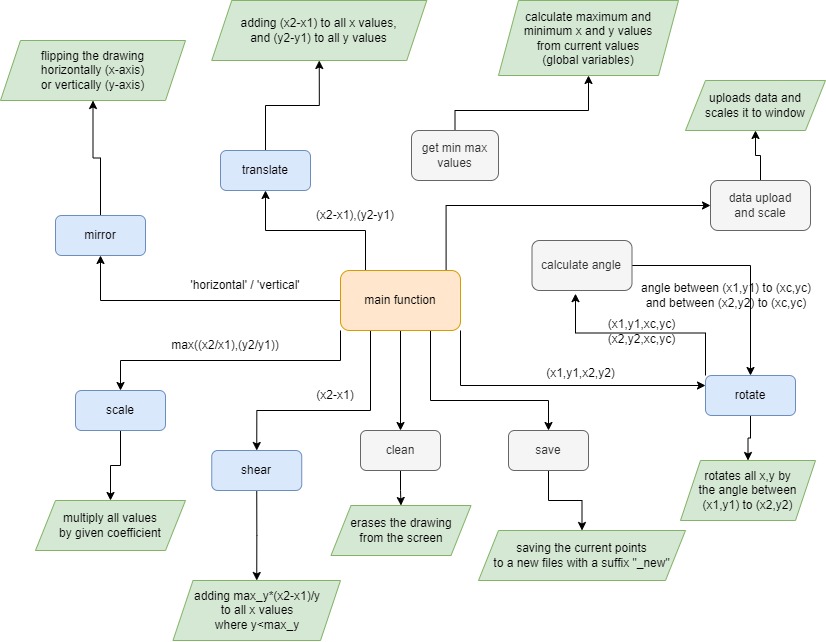
Simple explanation:

The program uses **mouse motion** (drag) as input for all transformations, except of mirror transformations (x-axis and y-axis), which is performed individually by clicking the mirroring icons.

Error handling:

The program simply won't let you drag the drawing outside the drawing area, which is bordered between the window frame and the buttons lines (side and bottom).  
Therefore, no error messages are shown, as they're redundant.

Functional Data Flow:

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