GeoEasy[os] 3.2

The development of the GeoEasy program started in 1997. Twenty years later in 2017 it became free software under GPL license, freely available for everybody. Nowadays it has an international user community and eight releases in the past four years.

The core development of GeoEasy is made on Linux operating system, using Tcl/Tk script language, thanks to the Tcl/Tk ports to several operating system the program can be used on Linux, on Windows (32 and 64 bit version), on Android tablets and on OSX machines. Intensive tests of the code have been made on Linux and Windows only.
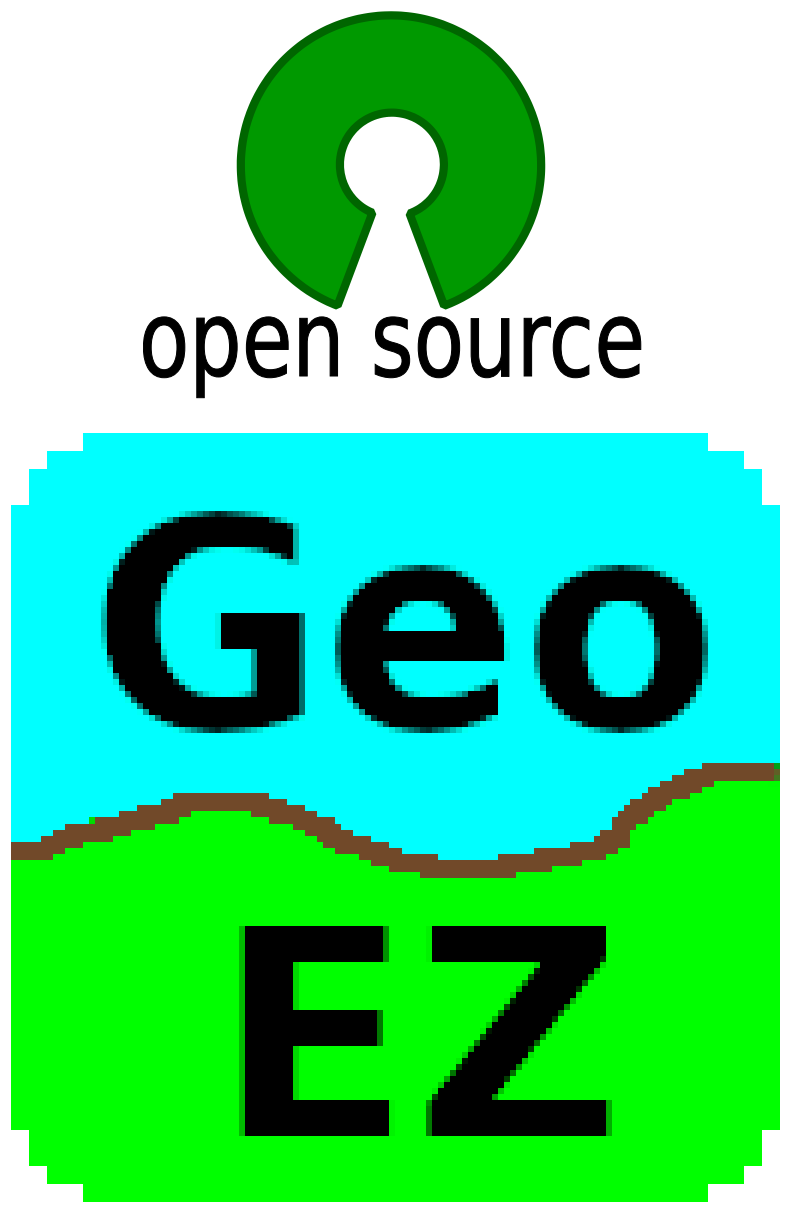
New features:
Spanish translation GUI
Better support for internationalization (UTF8)
OSX platform tested
Units for angles and distances are set centrally
SQL dump for PostGIS

SVG export
X3D export
Temporary disable selected observations
Several bug fixes:
more than 187 commits and 49 issues solved after 3.1

Objectives
User friendly graphical user interface
Modular, extendable structure
Direct process of data from total stations
Flexibility and openness connecting to other programs
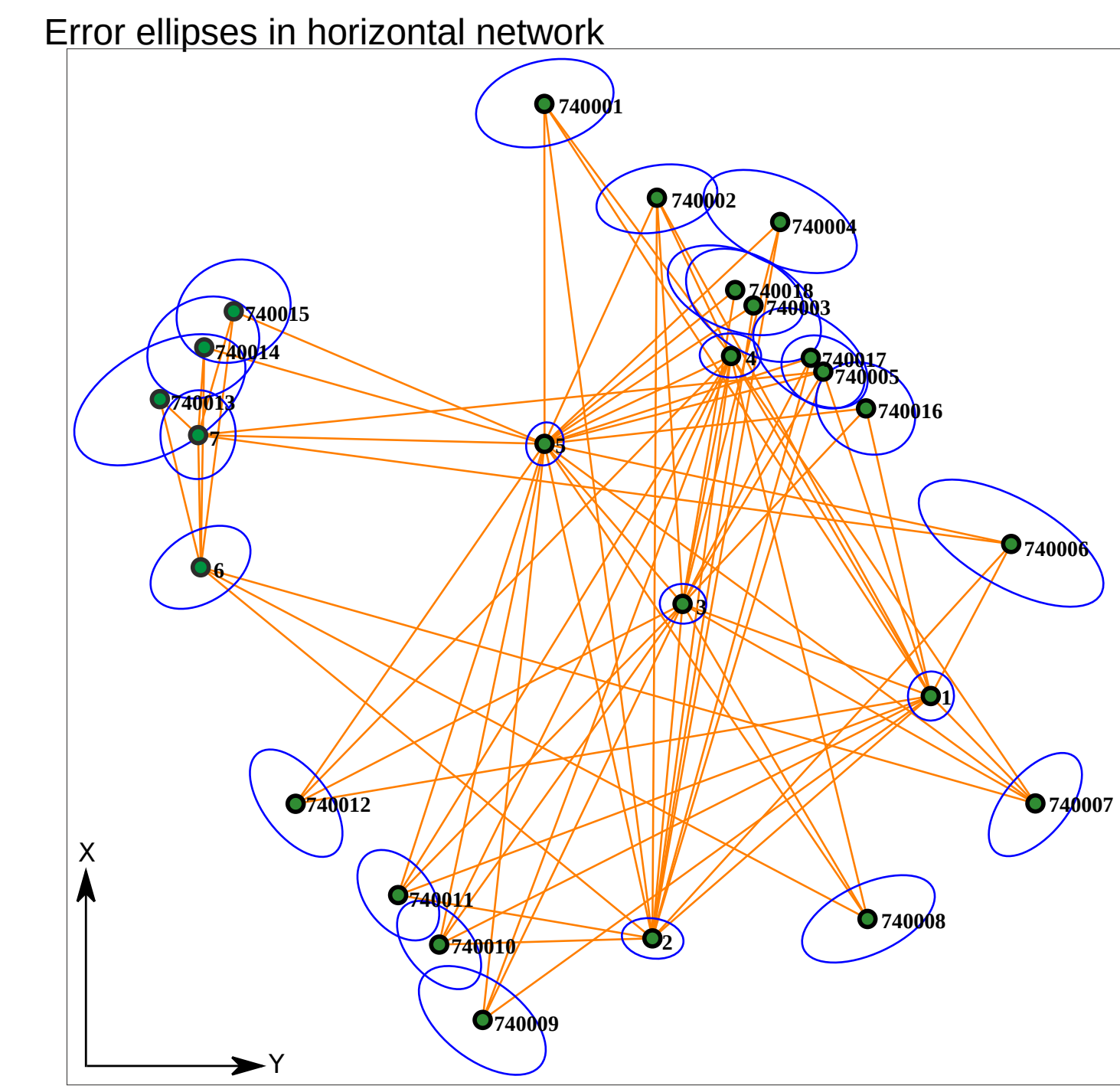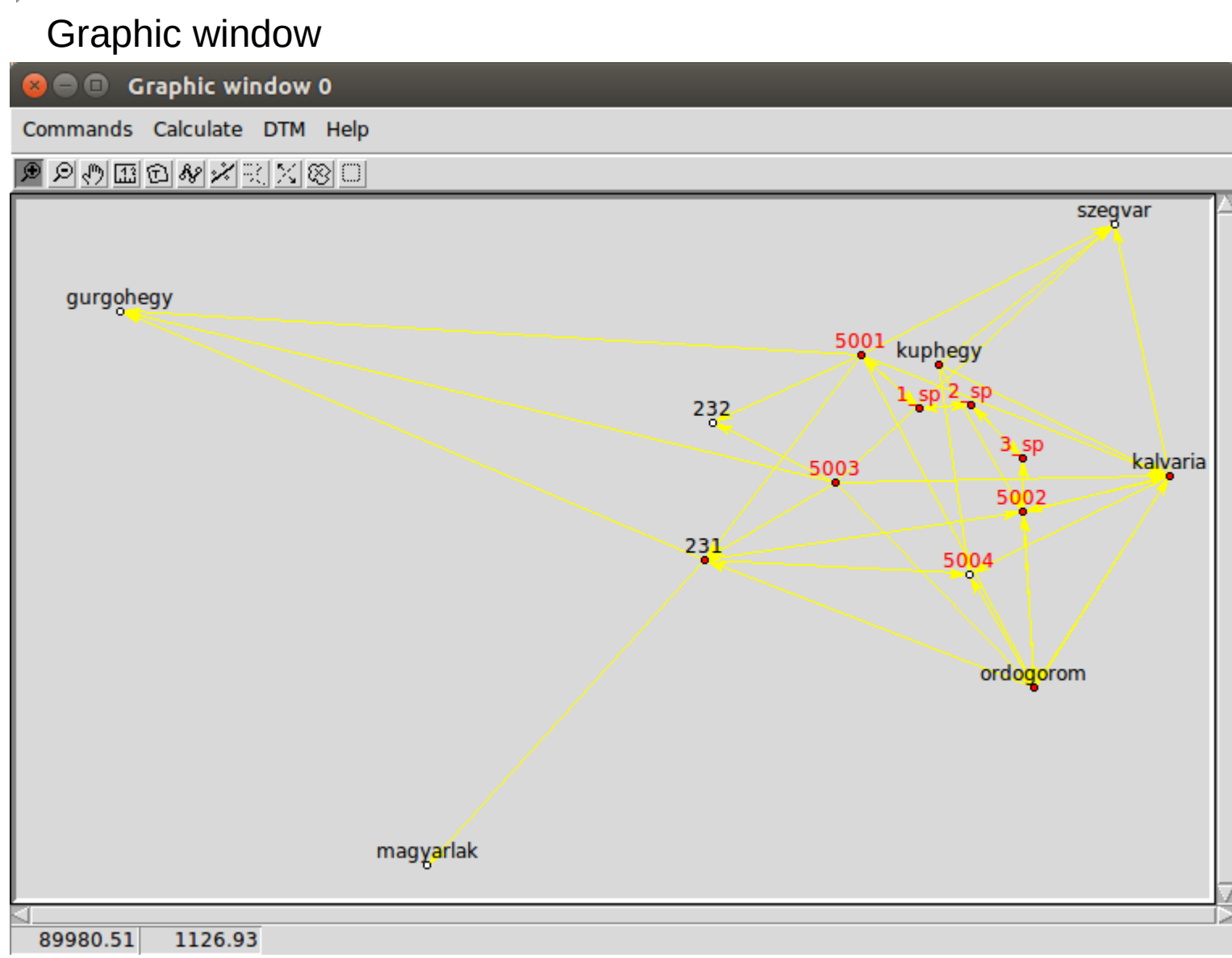Educational and professional usage

open source

Geo EZ

Download the binary releases for Windows and Linux:
http://digikom.hu/english/geo_easy_e.html
Download source code from GitHub:
https://github.com/zsiki/GeoEasy

Field-book

Coordinate list

Graphic window

Error ellipses in horizontal network

Development tool
Console window to run ad-hoc Tcl commands
Extend the functionality of GeoEasy with user defined scripts loaded from file
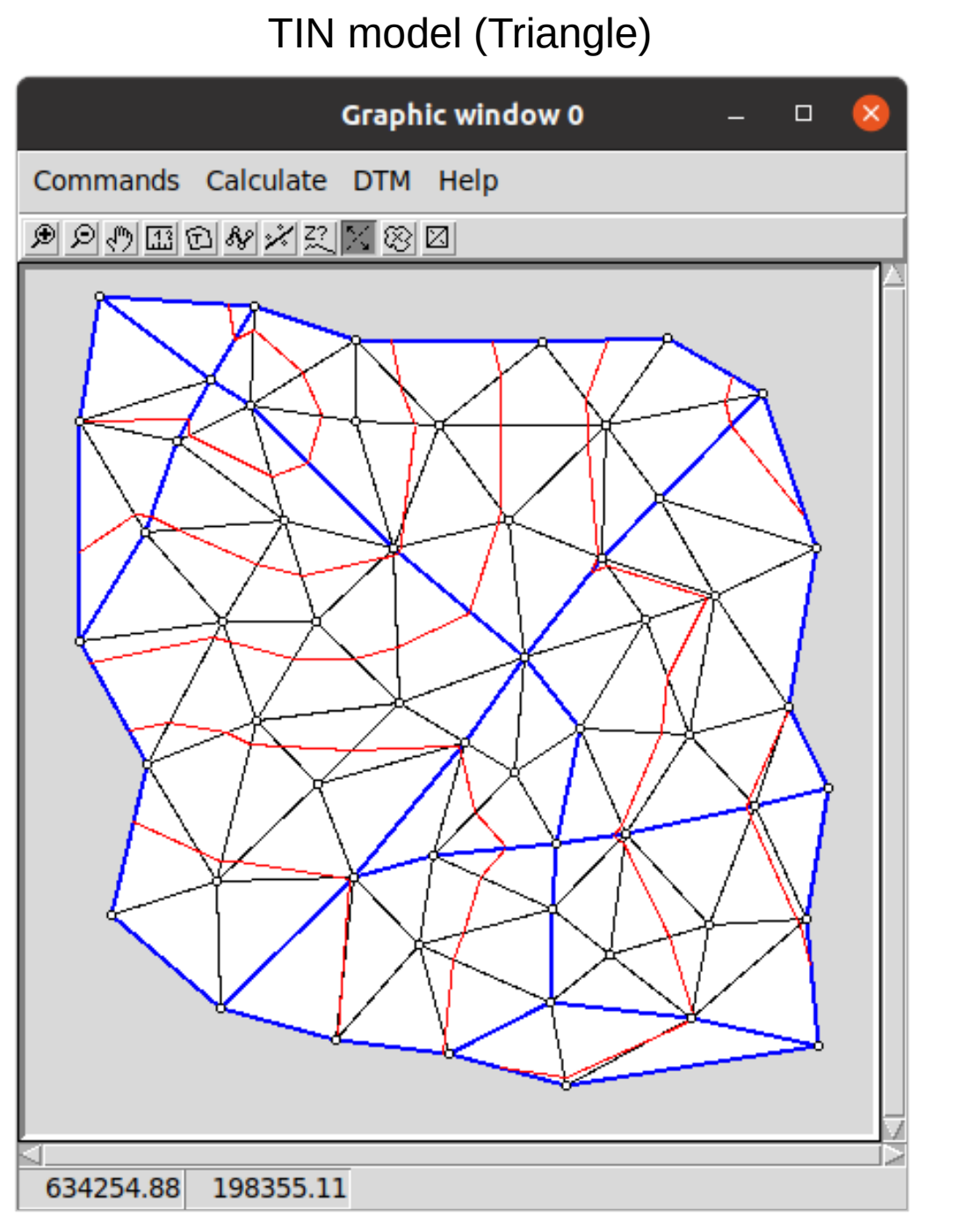Write your own app using GeoEasy as a library

Surveying calculations
Edit field-books and coordinate lists
Intersection, resection, orientation, ...
Traversing, trigonometric line
Coordinate transformations
Coordinate list and field-book import (several formats)
DXF import/export

Regression calculation
Solving engineering surveying tasks
Regression lines, plan, circle, sphere, 3D line, parallel lines

Regression circle

Network adjustment (GNU Gama)
1D/2D/3D geodetic networks
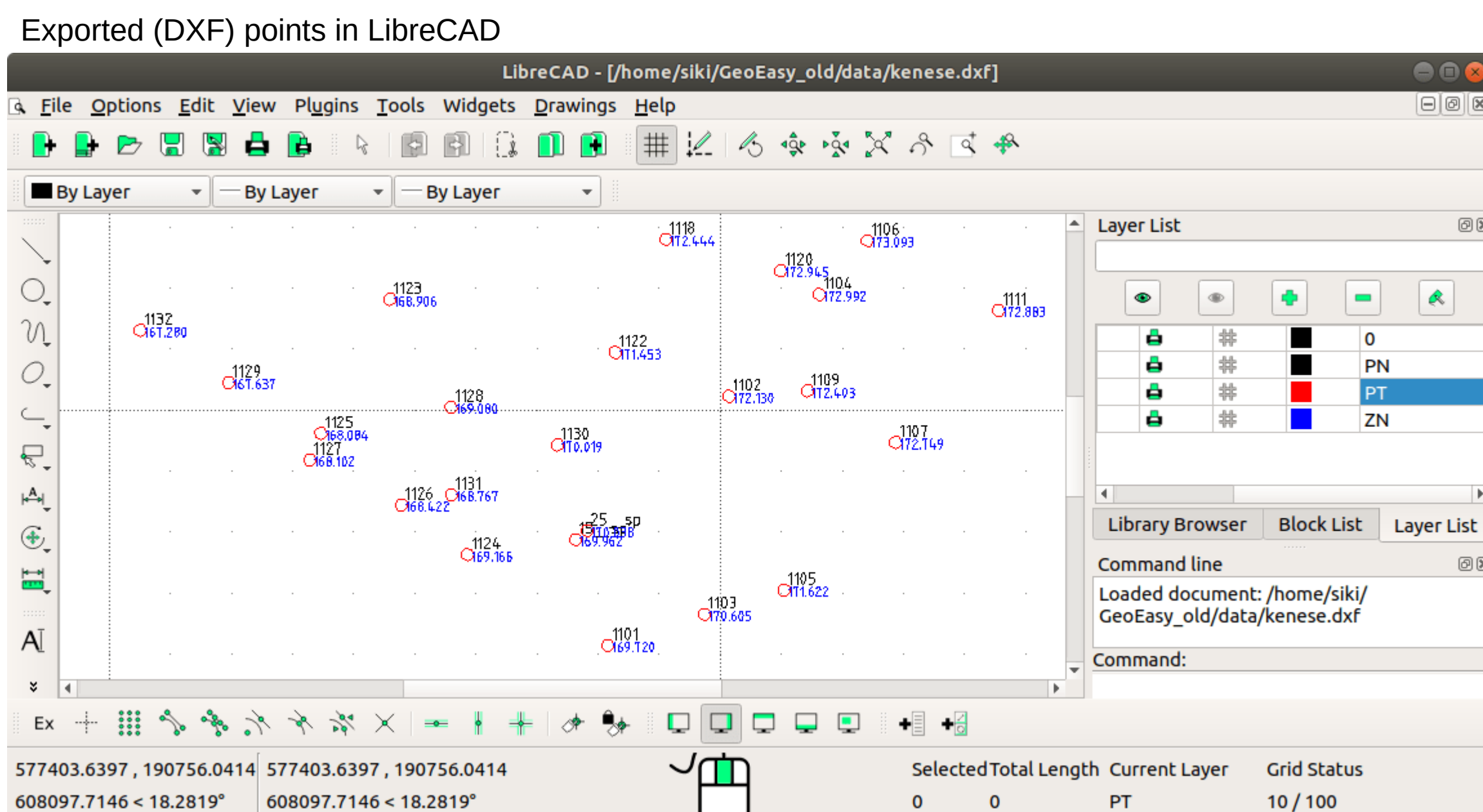Normality check
Data snooping
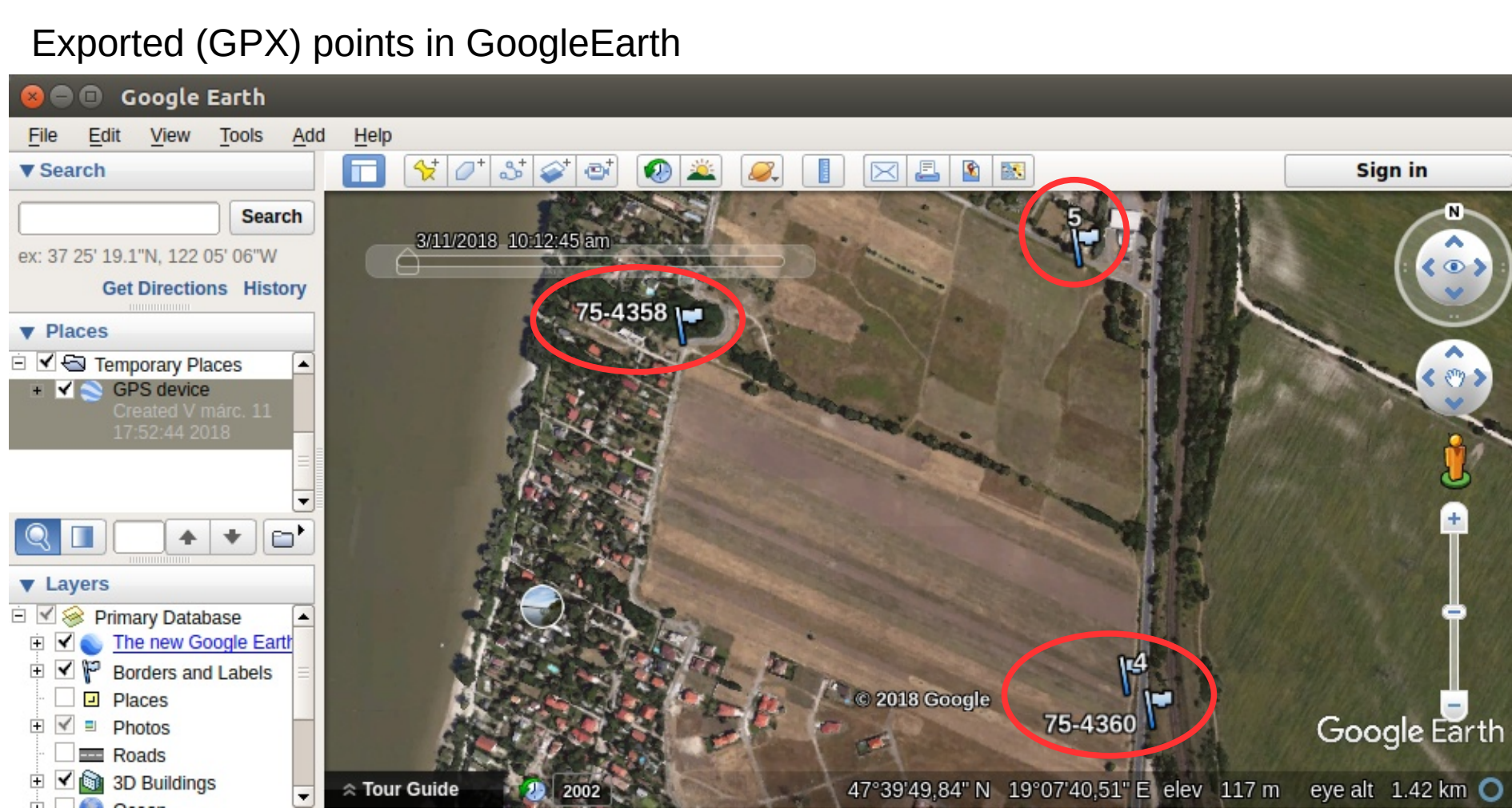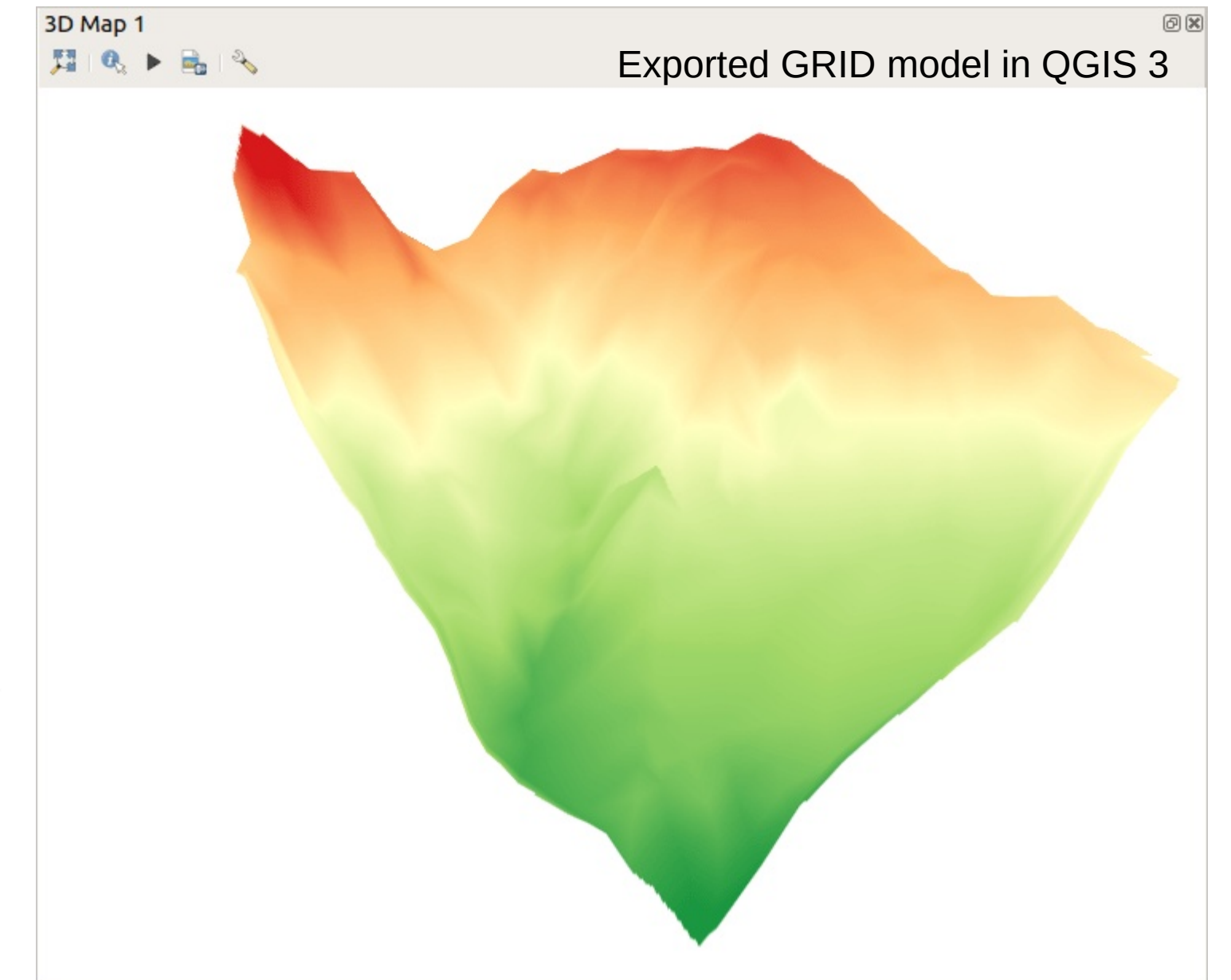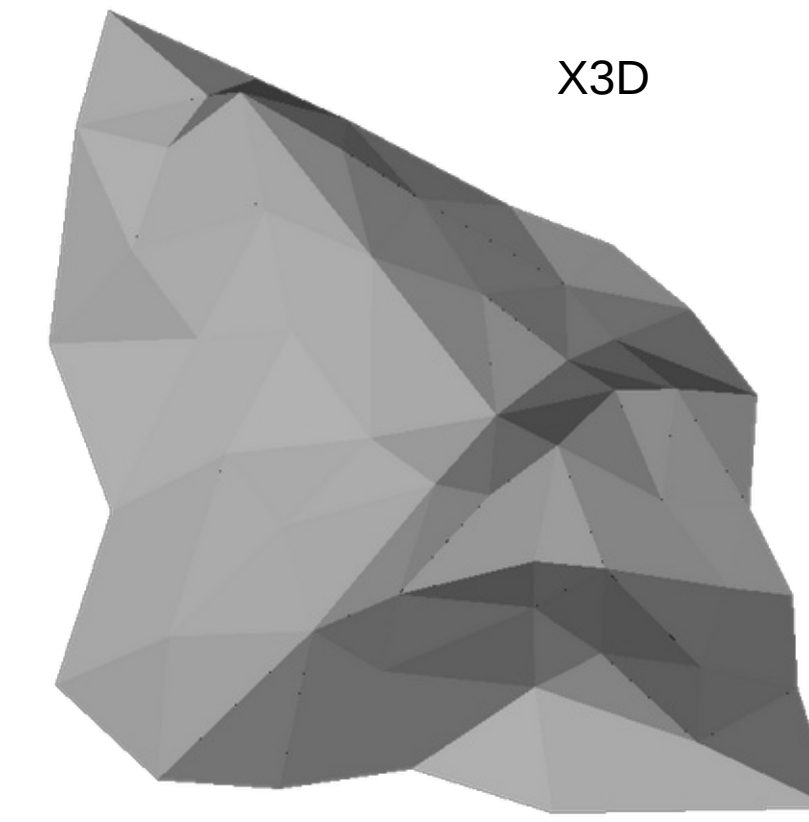Network sketch with error ellipses

Digital Terrain Models
DXF import
TIN models
Break lines
Contour lines
Volume calculation
Cross sections
VRML/X3D, KML, DXF export
ASCII GRID export
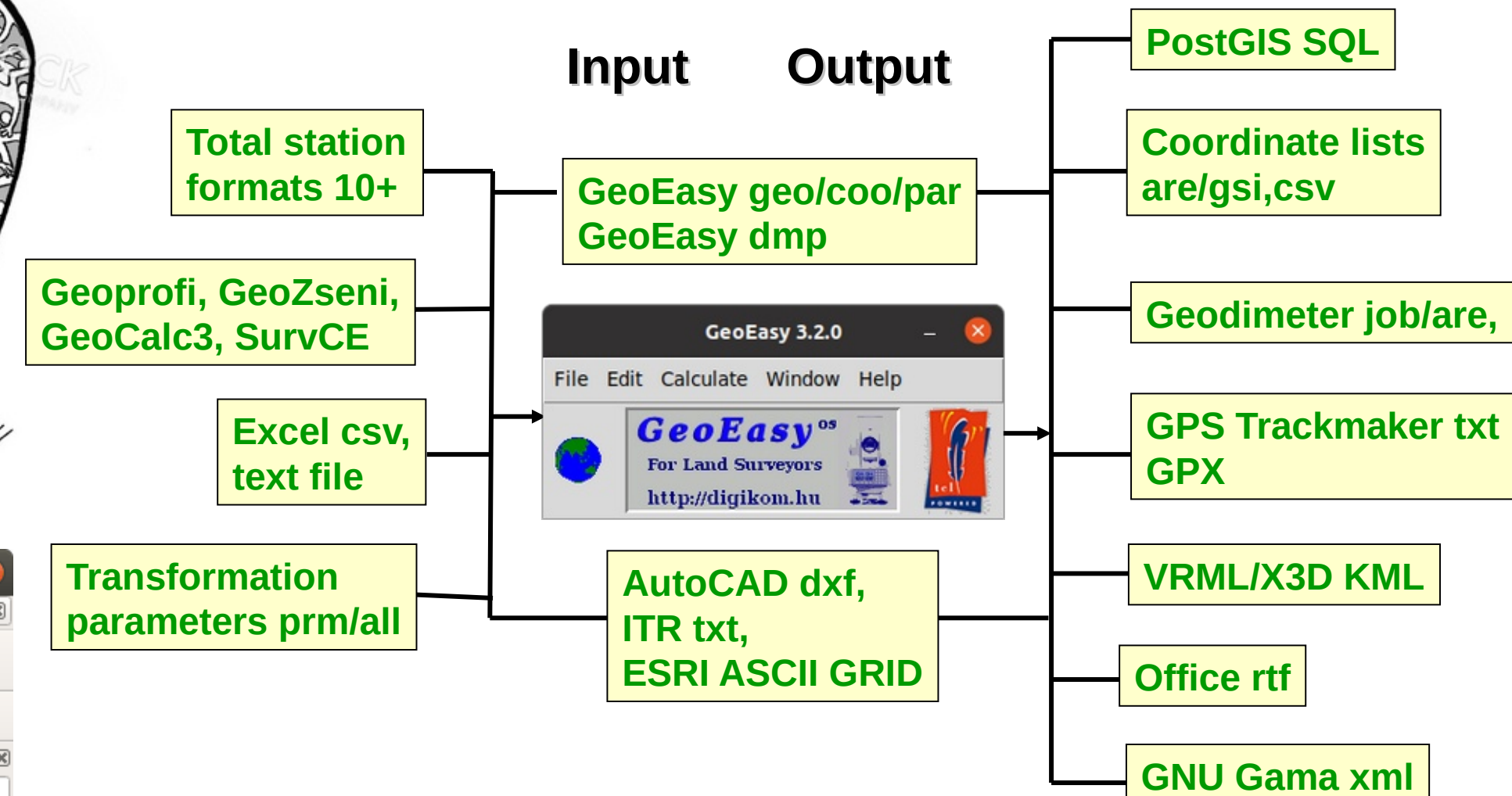Update, regenerate, edit

GeoEasy

TIN model (Triangle)

Adjustment results (GNU Gama)

```
Adjusted coordinates
********************
i    point  approximate  correction   adjusted   std.dev conf.i.
            value ====== [m] ====== value ========== [mm] ===
      1
17      X *  735.53500  -0.00002   735.53498    0.4    0.7
18      Y *  598.88300   0.00013   598.88313    0.3    0.7
      2
23      X *  673.49900  -0.00001   673.49899    0.3    0.6
24      Y *  527.57600  -0.00087   527.57513    0.4    0.8
      3
1       X *  759.06300  -0.00002   759.06298    0.3    0.6
2       Y *  535.25100  -0.00007   535.25093    0.3    0.6
      4
36      X *  822.31000   0.00005   822.31005    0.3    0.7
37      Y *  547.62300  -0.00015   547.62285    0.4    0.9
```

X3D

Exported GRID model in QGIS 3

GitHub page of the project

Exported (GPX) points in GoogleEarth

Connections to other programs through data sets

Input   Output

Total station formats 10+
Geoprofi, GeoZseni, GeoCalc3, SurvCE
Excel csv, text file
Transformation parameters prm/all

GeoEasy geo/coo/par
GeoEasy dmp

AutoCAD dxf, ITR txt, ESRI ASCII GRID

PostGIS SQL
Coordinate lists are/gsi,csv
Geodimeter job/are,
GPS Trackmaker txt GPX
VRML/X3D KML
Office rtf
GNU Gama xml

Downloads yearly statistics

Exported (DXF) points in LibreCAD

Open-source software used
Tcl/Tk (https://www.tcl.tk/)
GNU Gama (https://www.gnu.org/software/gama/)
Triangle (https://github.com/MrPhil/Triangle)
Proj cs2cs (http://proj.org)
NSIS (http://nsis.sourceforge.net/Main_Page)
Freewrap (http://freewrap.sourceforge.net/)
Bash-deb-build (https://github.com/BASH-Auto-Tools/bash-deb-build)
Rst2pdf (https://rst2pdf.org)

Let us develop GeoEasy together!
Source code available on GitHub (https://github.com/zsiki/GeoEasy)
Report errors you found in issue tracker (https://github.com/zsiki/GeoEasy/issues)
Extend and correct the documentation (https://github.com/zsiki/GeoEasy/doc)
Help other users creating a new wiki page (https://github.com/zsiki/GeoEasy/wiki)
Translate GUI messages to your language (https://github.com/zsiki/GeoEasy/wiki/How-to-localize-GeoEasy-to-my-mother-tongue%3F)

About GeoEasy ...
GeoEasy 3.2.0
(built 2021.10.28.)
Sponsored by DigiKom Ltd.
Surveying calculations for Land Surveyors
Modules: com reg dtm adj crs
Open source GPL 2
OK