GeoEasy^OS 3.1

The development of the GeoEasy program started in 1997. Twenty years later in 2017 it has became free software under GPL license, freely available for everybody. The ComEasy module of the project was released under open source license from the beginnings (see https://github.com/zsiki/ComEasy). 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 were made on Linux and Windows only.
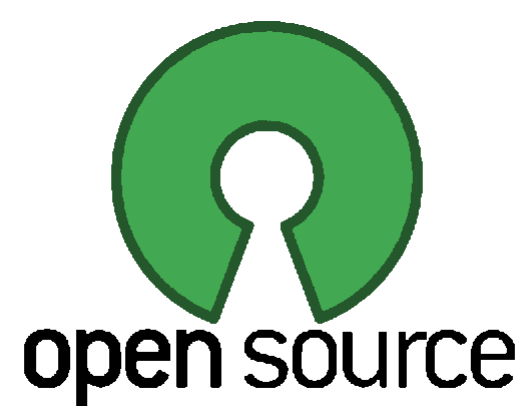
New features:
- German, Czeh, Russian GUI
- Tcl console for your scripts
- Portable windows release
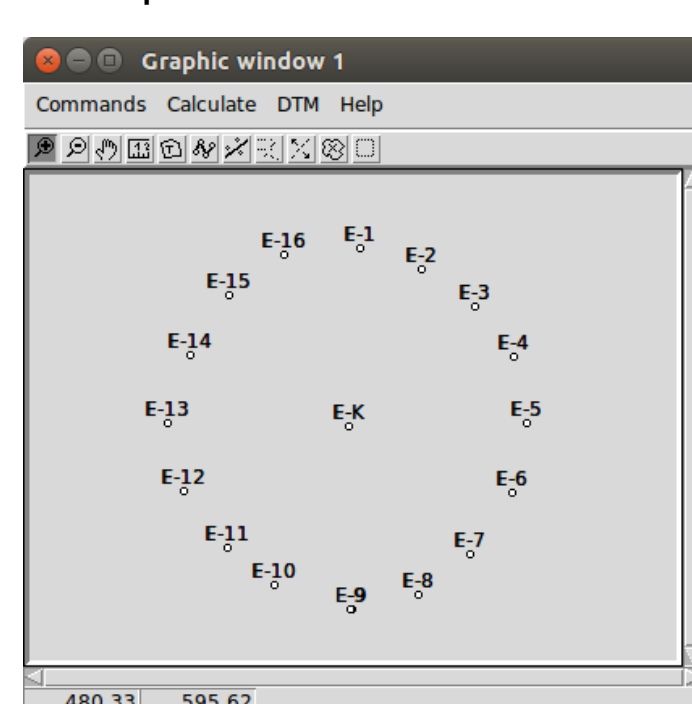- Variable column widths in field-books
- Parallel line regression
- Vertical transformation
- KML export of coordinate list
- Many bugfixes
- More than 180 commits and 43 issues solved after 3.0

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

Download the binary releases for Windows and Linux:
http://digikom.hu/english/geo_easy_e.html

Graphic window

Field-book

Coordinate list

Regression circle

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
Intersection, resection, orientation, ...
Traversing, trigonometric line
Coordinate transformations
Coordinate list and field-book import (several formats)
DXF export

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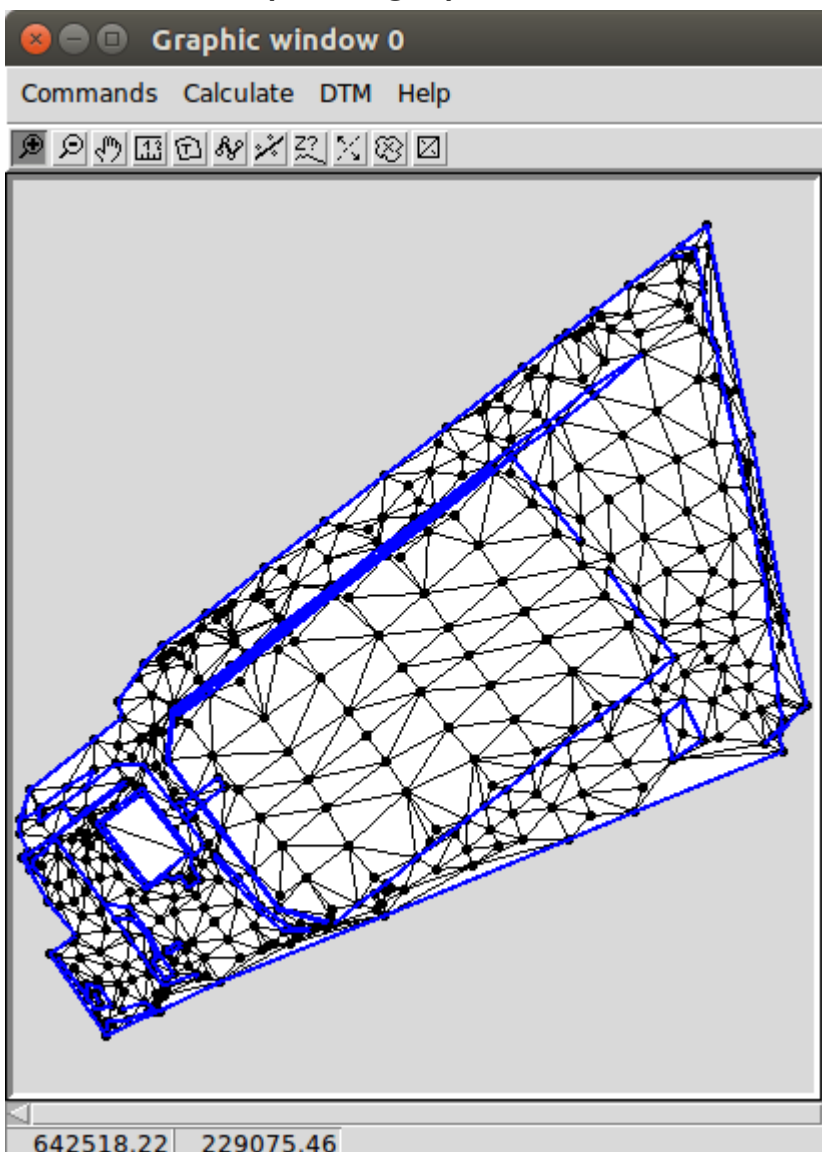Regression lines, plan, circle, sphere, 3D line, parallel lines

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

GeoEasy

Network adjustment
1D/2D/3D geodetic network
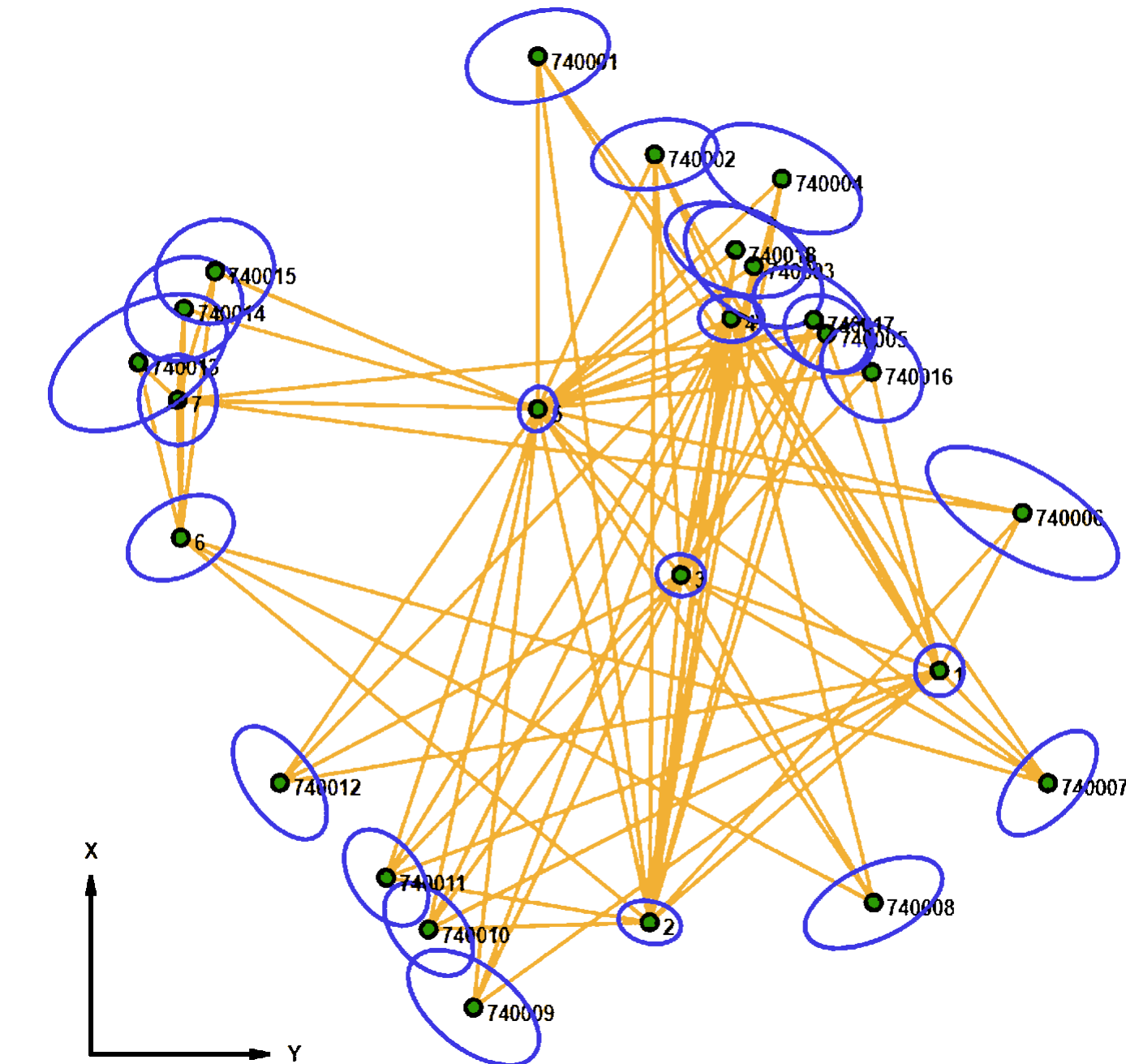Normality check
Data snooping
Network sketch with error ellipses

TIN model (Triangle)

Graphic window

Error ellipses in horizontal network

Adjustment results (GNU Gama)
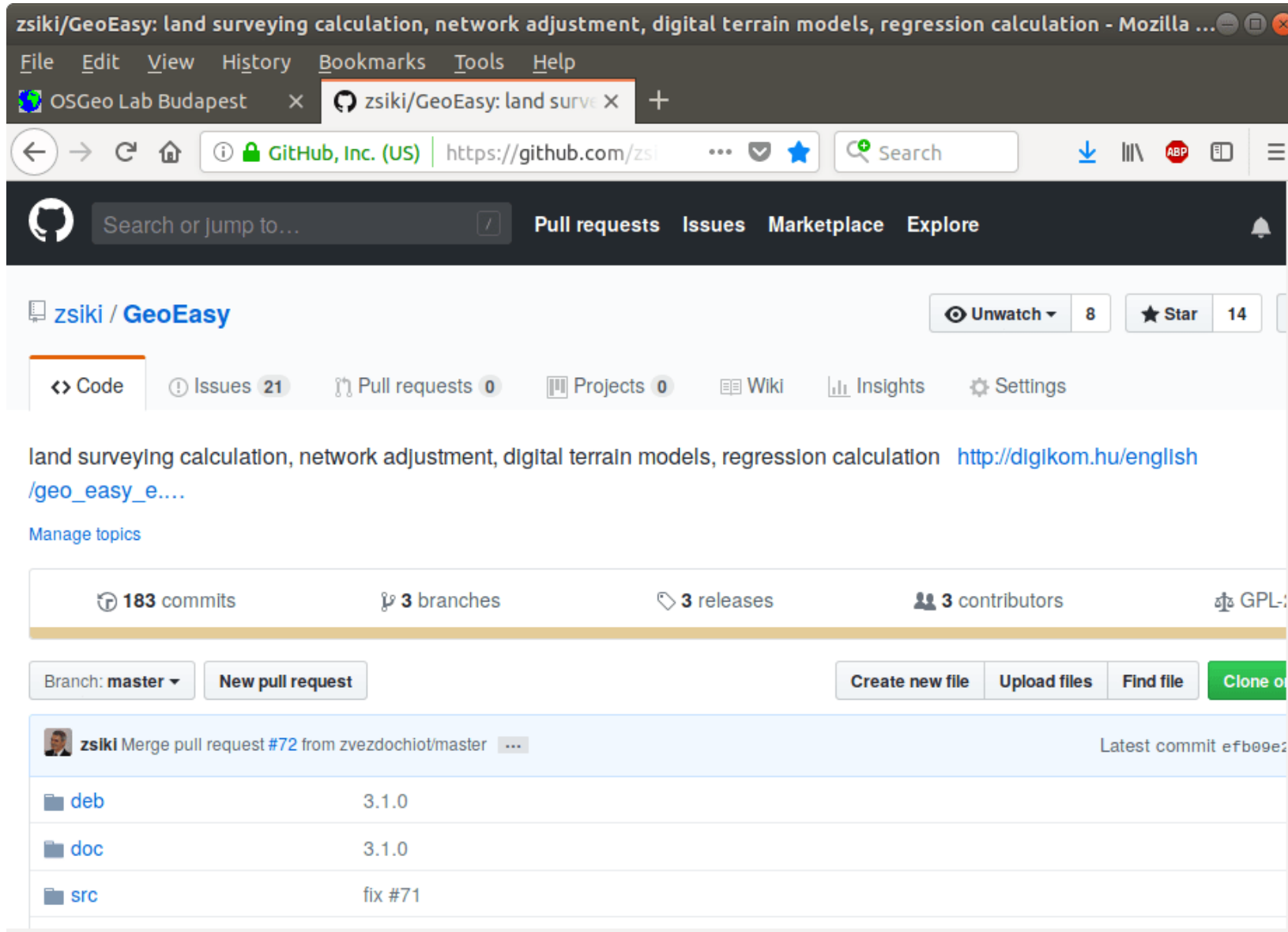
```
Adjusted coordinates
********************
i     point   approximate   correction   adjusted    std.dev  conf.i.
              value ====== [m] ====== value ========== [mm] ===
=============================================================
              1
17    X *     735.53500    -0.00002     735.53498    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
```
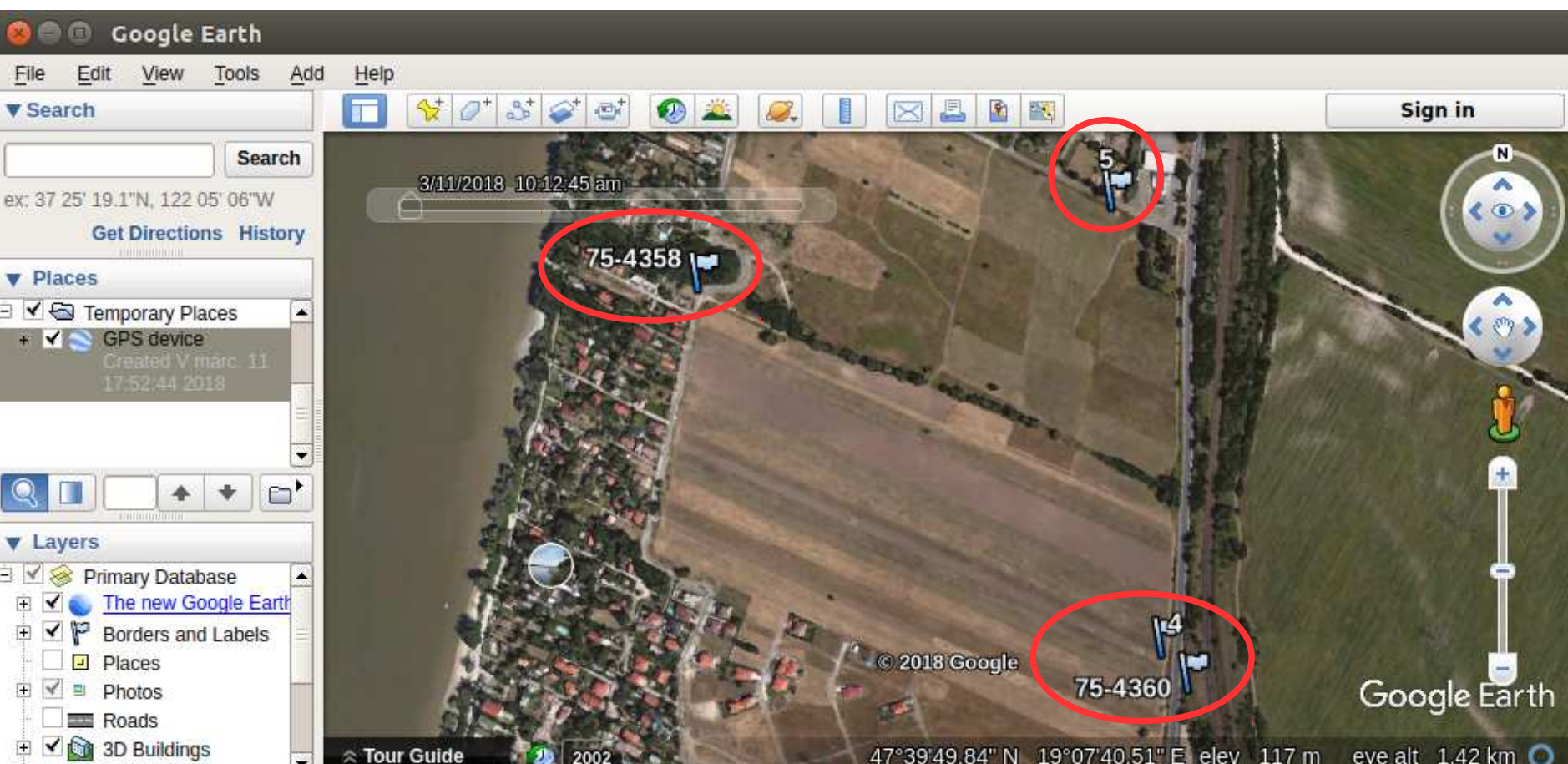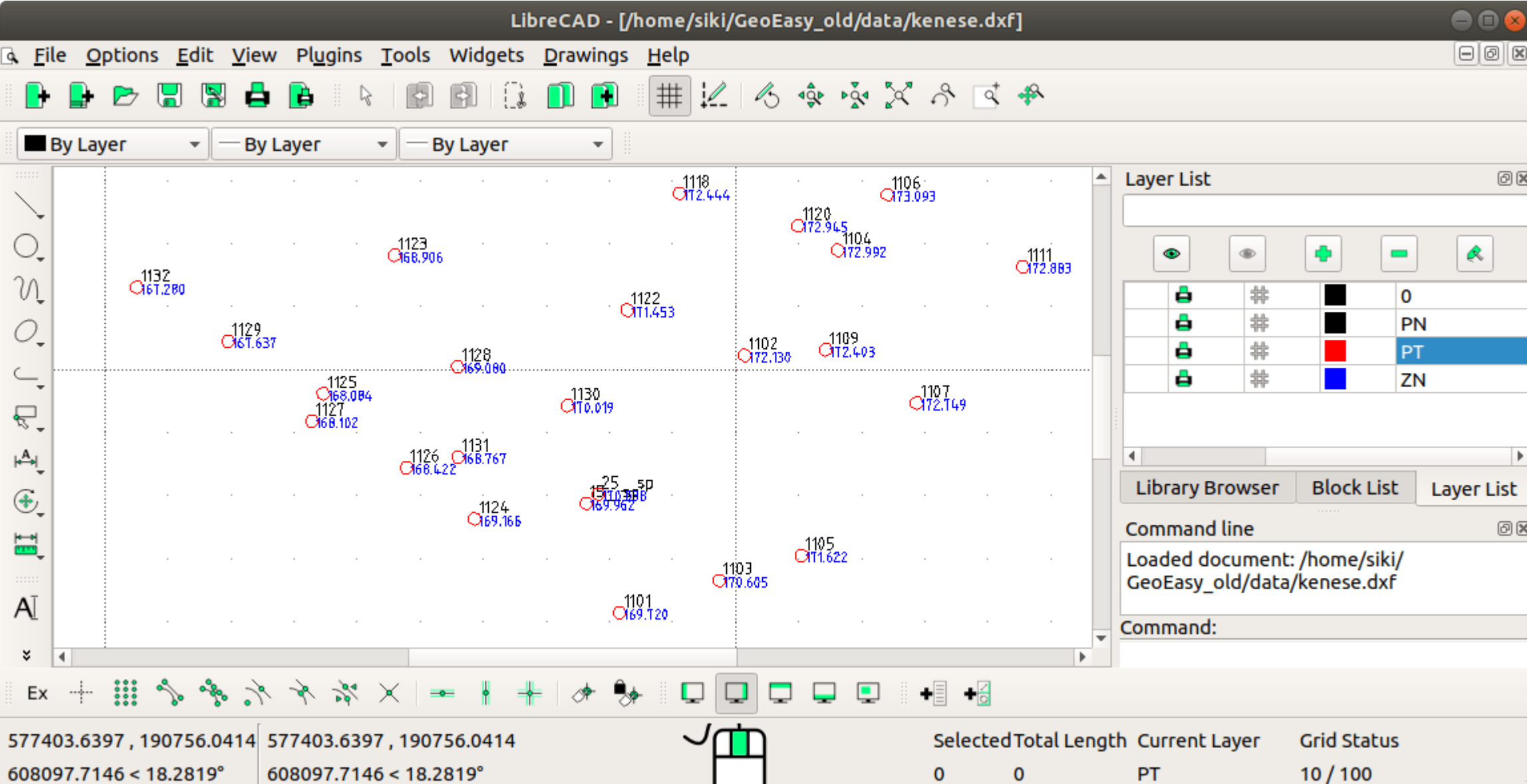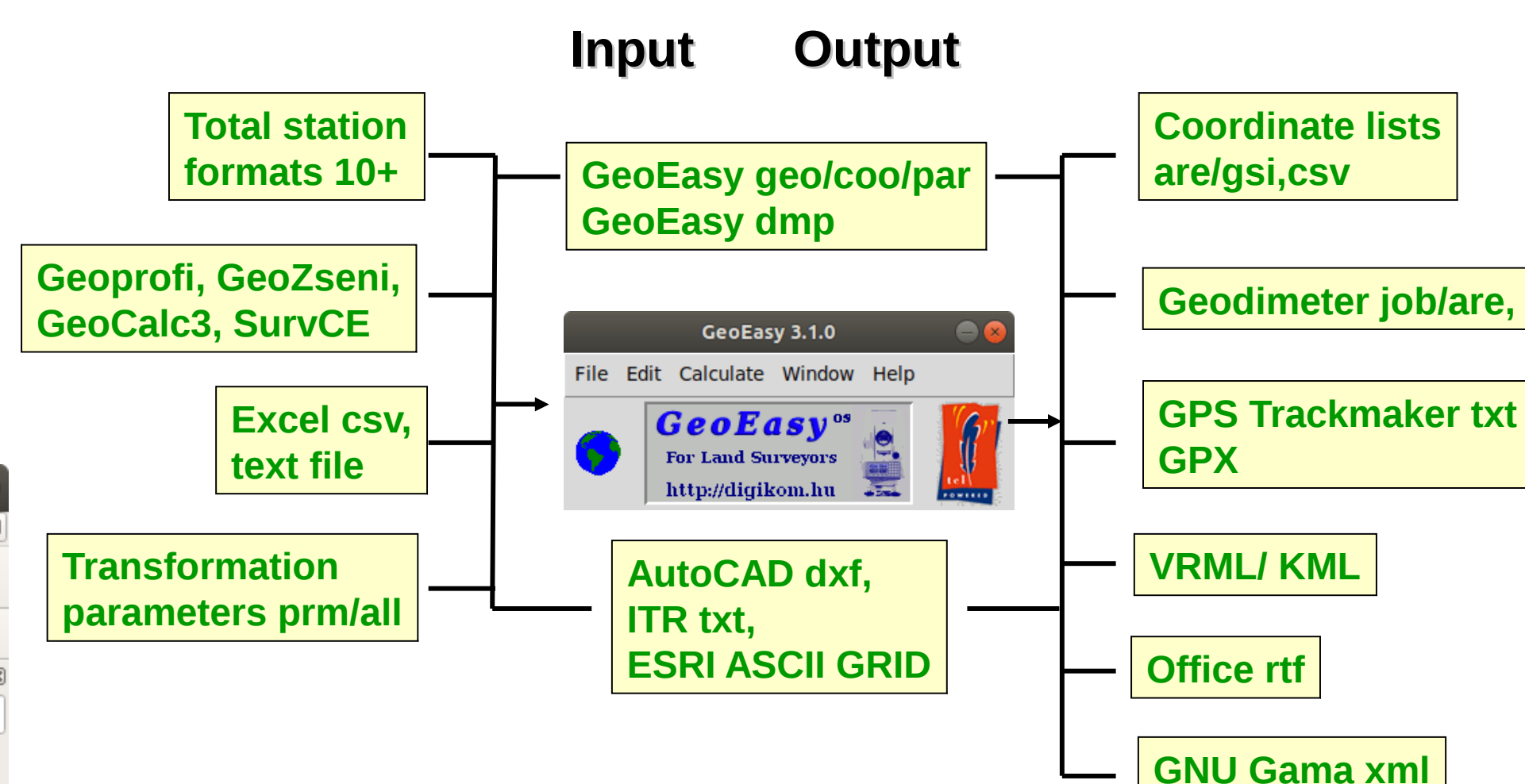

Exported GRID model in QGIS 3

GitHub page of the project

Exported (GPX) points in GoogleEarth

OPEN SOURCE SOFTWARE

Connections to other programs through data sets

Input — Output

Total station formats 10+ → GeoEasy geo/coo/par GeoEasy dmp → Coordinate lists are/gsi,csv

Geoprofi, GeoZseni, GeoCalc3, SurvCE → Geodimeter job/are,

Excel csv, text file → GPS Trackmaker txt GPX

Transformation parameters prm/all → AutoCAD dxf, ITR txt, ESRI ASCII GRID → VRML/ KML

Office rtf

GNU Gama xml

Exported (DXF) points in LibreCAD

Downloads 2017 October - 2019 April

OS software used
Tcl/Tk (https://www.tcl.tk/)
GNU Gama (https://www.gnu.org/software/gama/)
Triangle (https://github.com/MrPhil/Triangle)
Proj (https://proj4.org/)
NSIS (http://nsis.sourceforge.net/Main_Page)
Freewrap (http://freewrap.sourceforge.net/)

Let us develope GeoEasy together!
Source code available on GitHub (https://github.com/zsiki/GeoEasy)
Report the 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 (https://github.com/zsiki/GeoEasy/wiki)

About GeoEasy ...
GeoEasy 3.1.0
(built 2018.10.20.)
Sponsored by DigiKom Ltd.
Surveying calculations
for Land Surveyors
Modules: com reg dtm adj crs
Open source GPL 2
OK