GeoEasy os 3.1

GeoEasy 3.1.0

File Edit Calculate Window Help

GeoEasy os
For Land Surveyors
http://digikom.hu

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, Czech, Russian GUI
- Tcl console for your scripts
- Portable windows release
- Variable column widths in field-books
- Parallel line regression
- Circle regression fixed radius
- Vertical transformation
- KML export of coordinate list
- Many bug-fixes
- More than 400 commits and 72 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
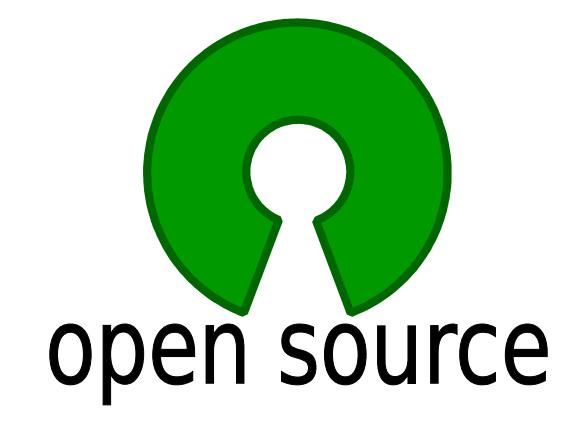
Graphic window
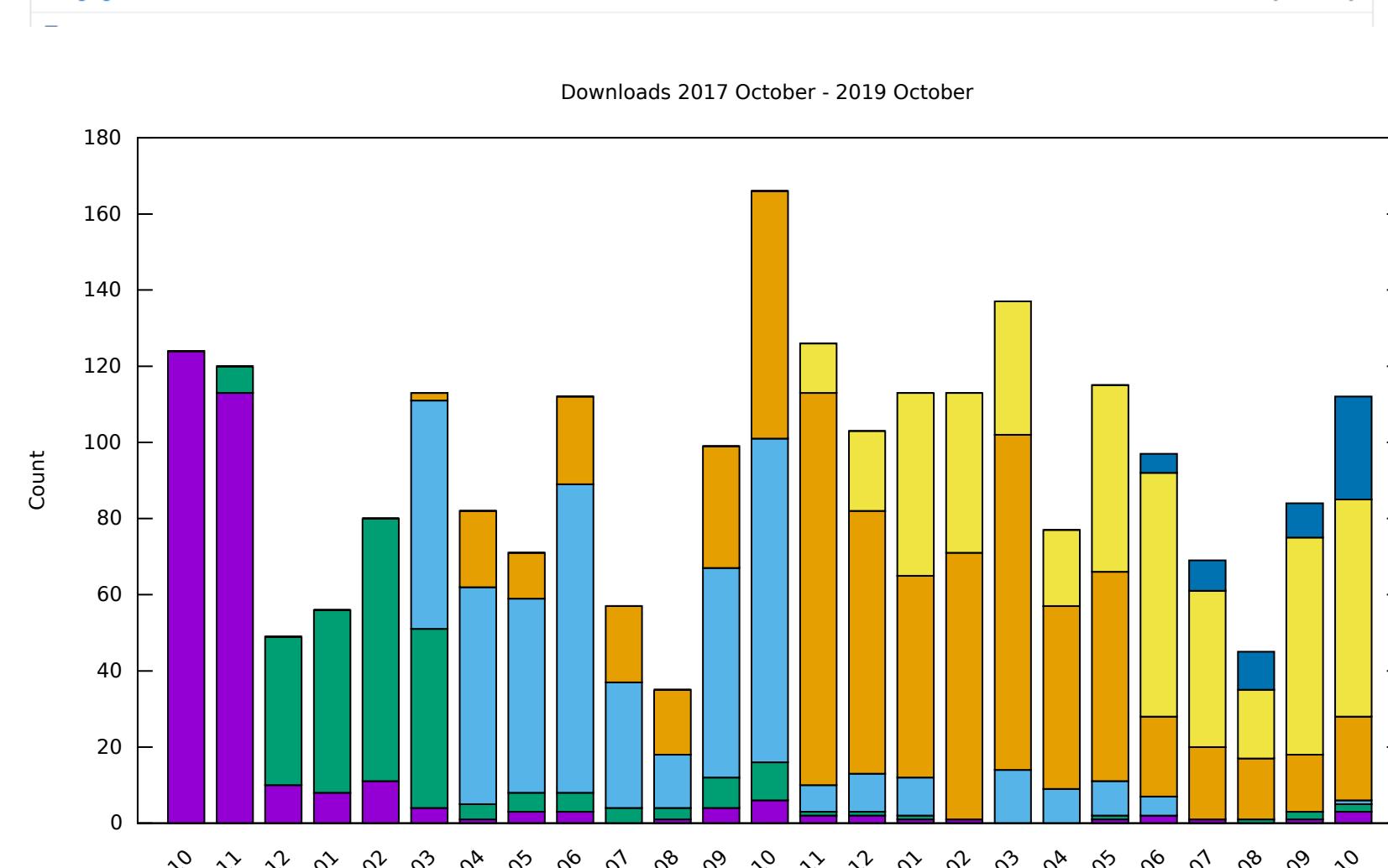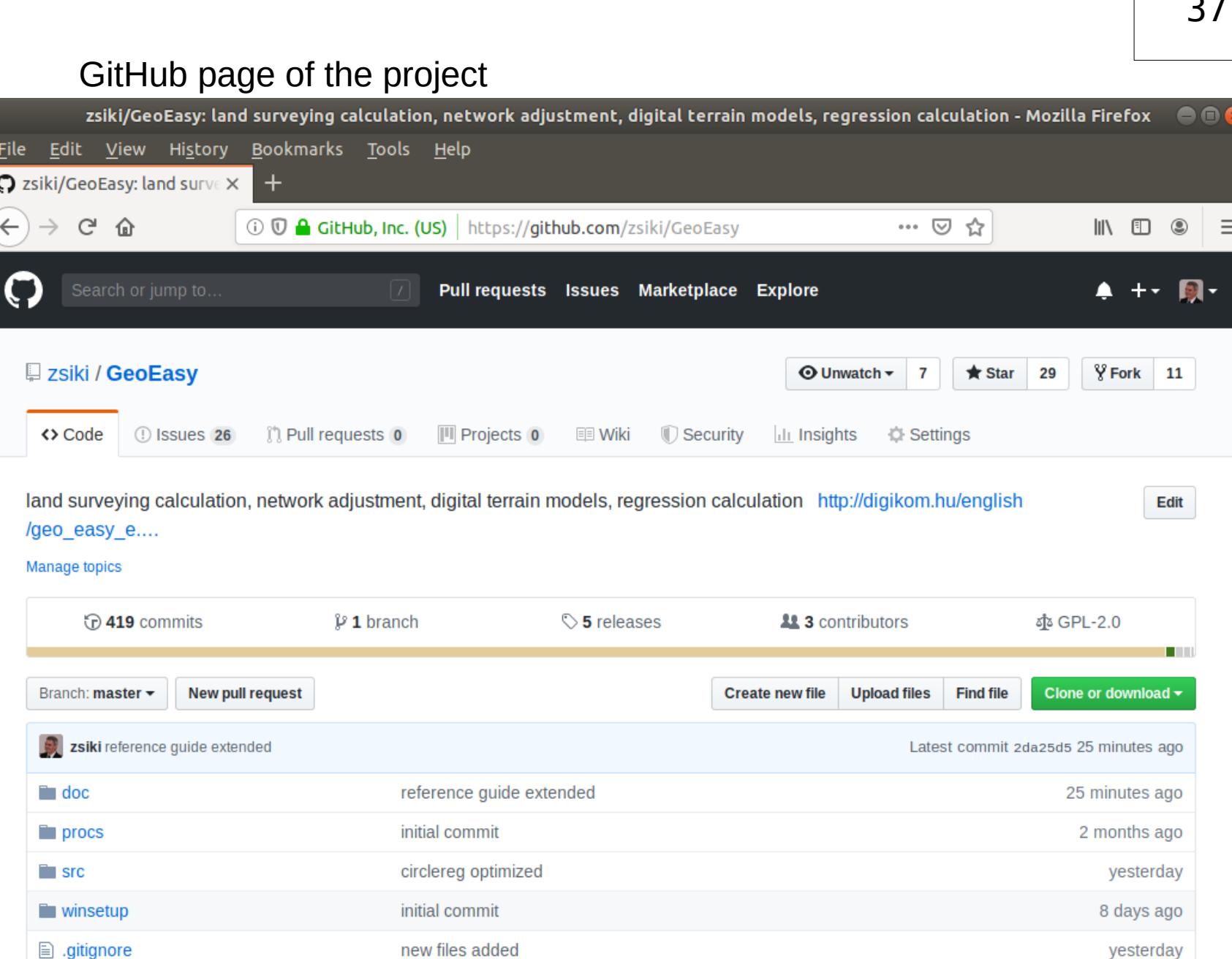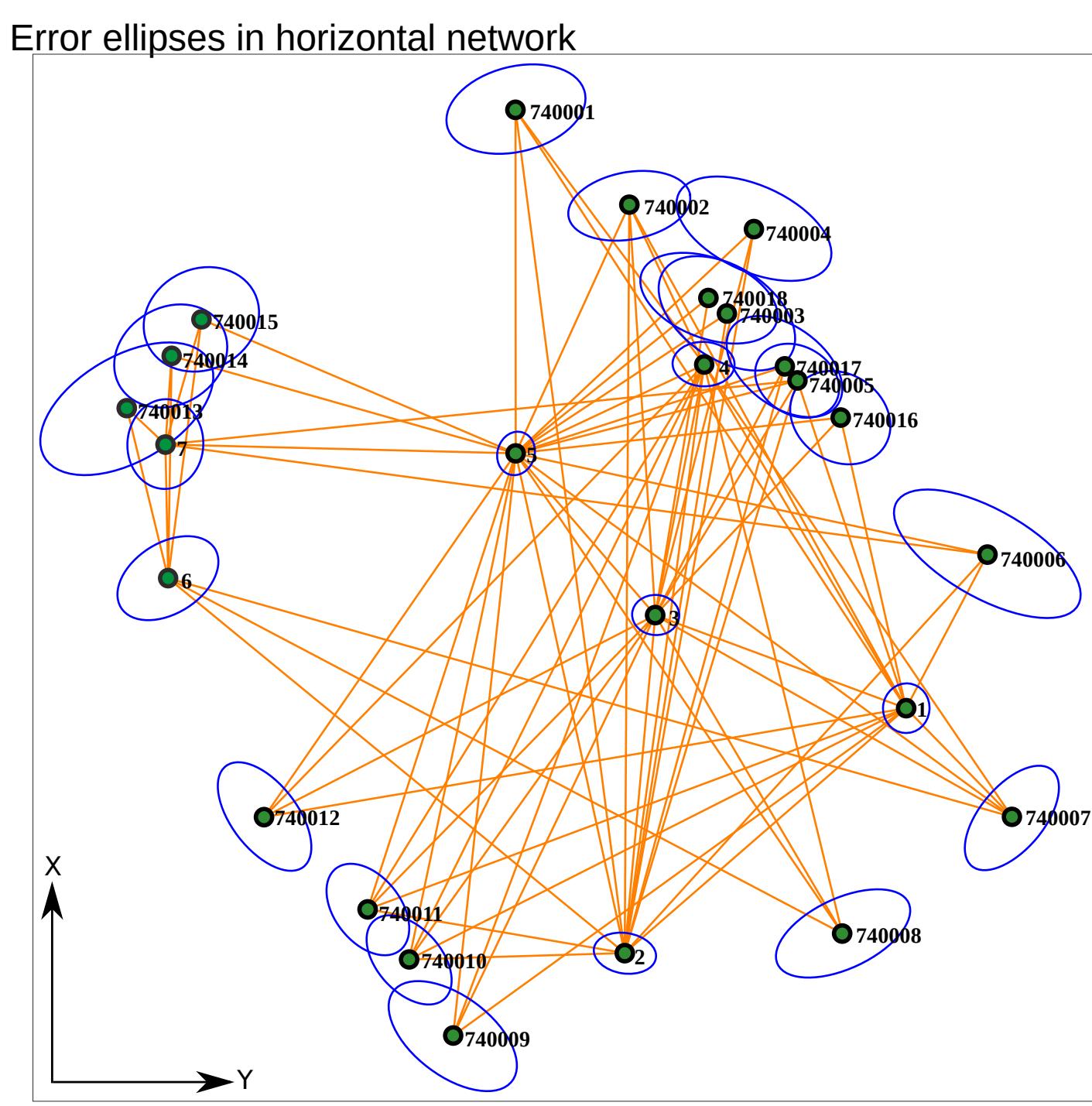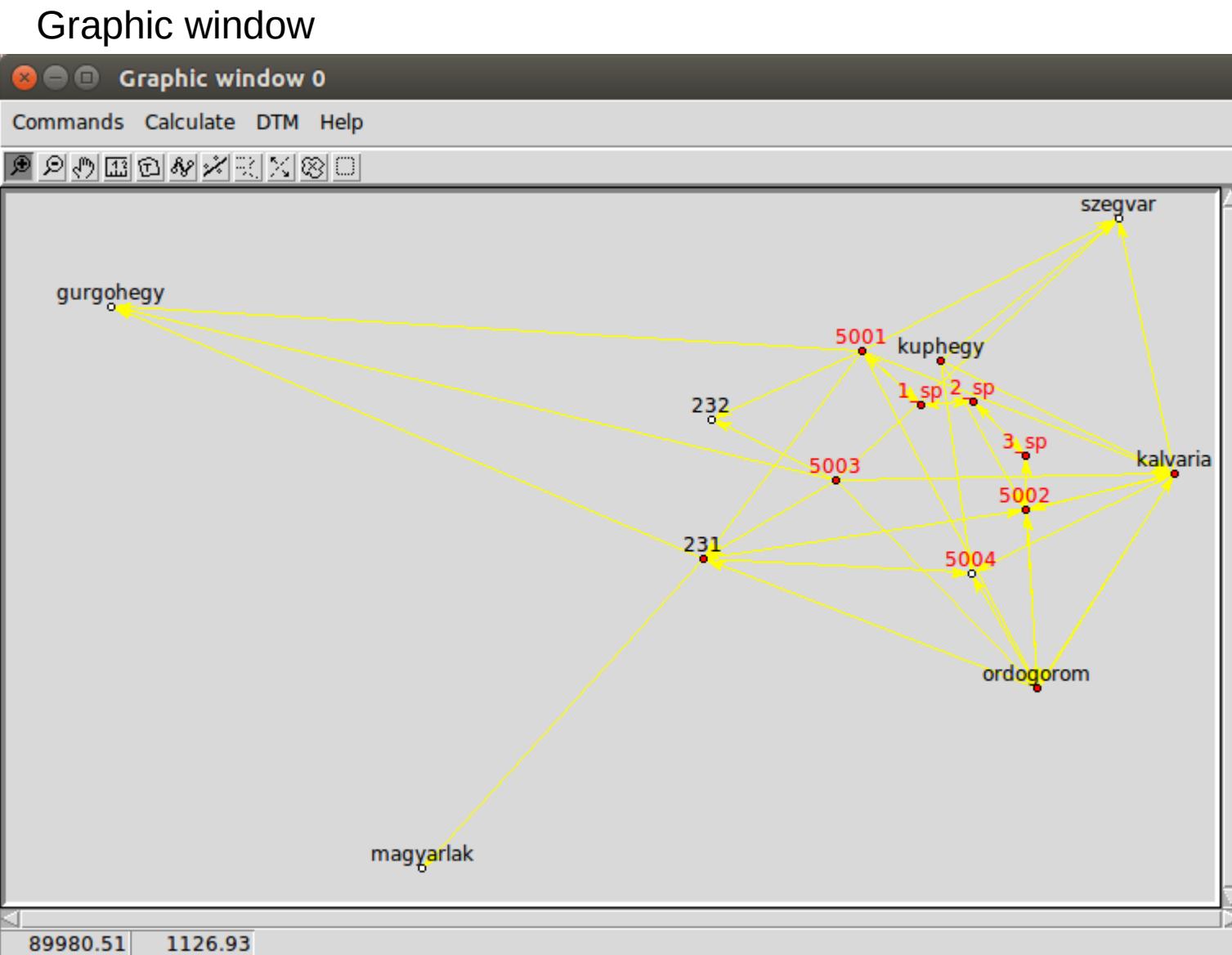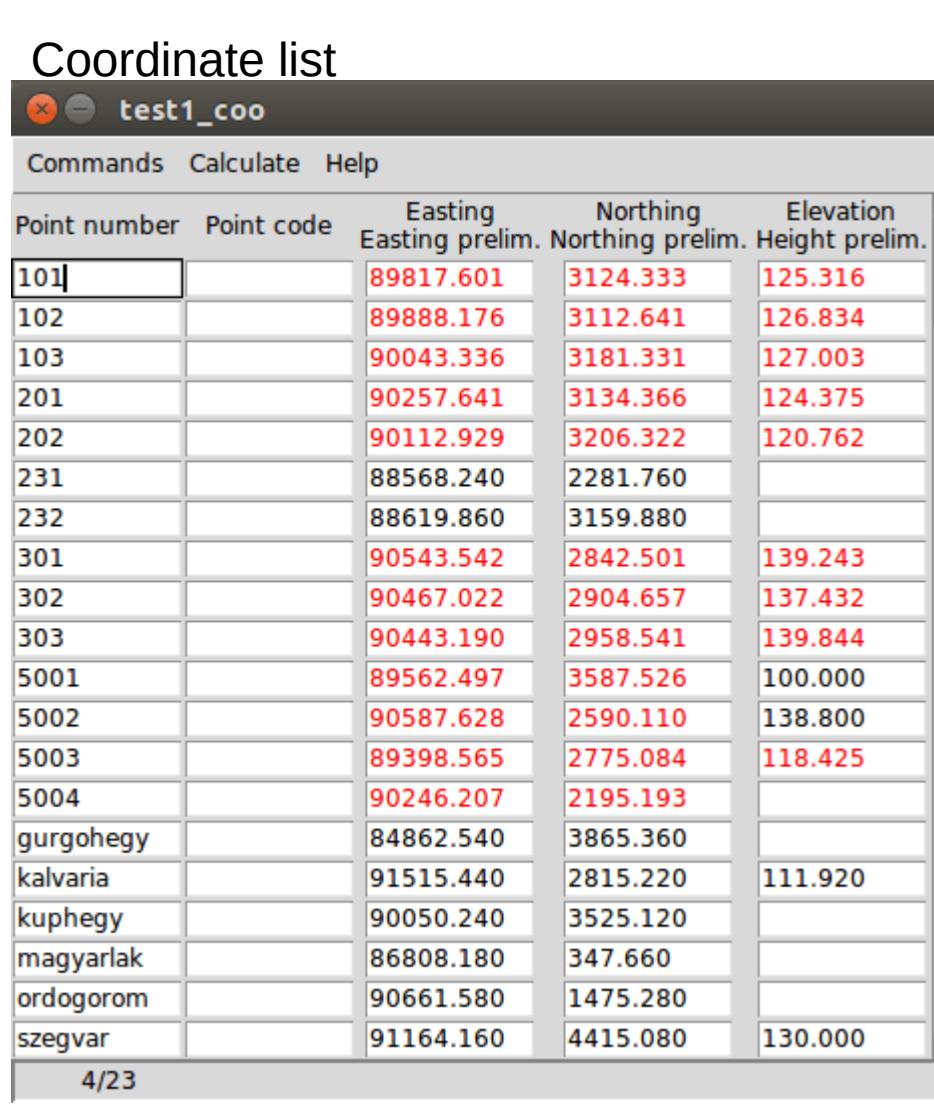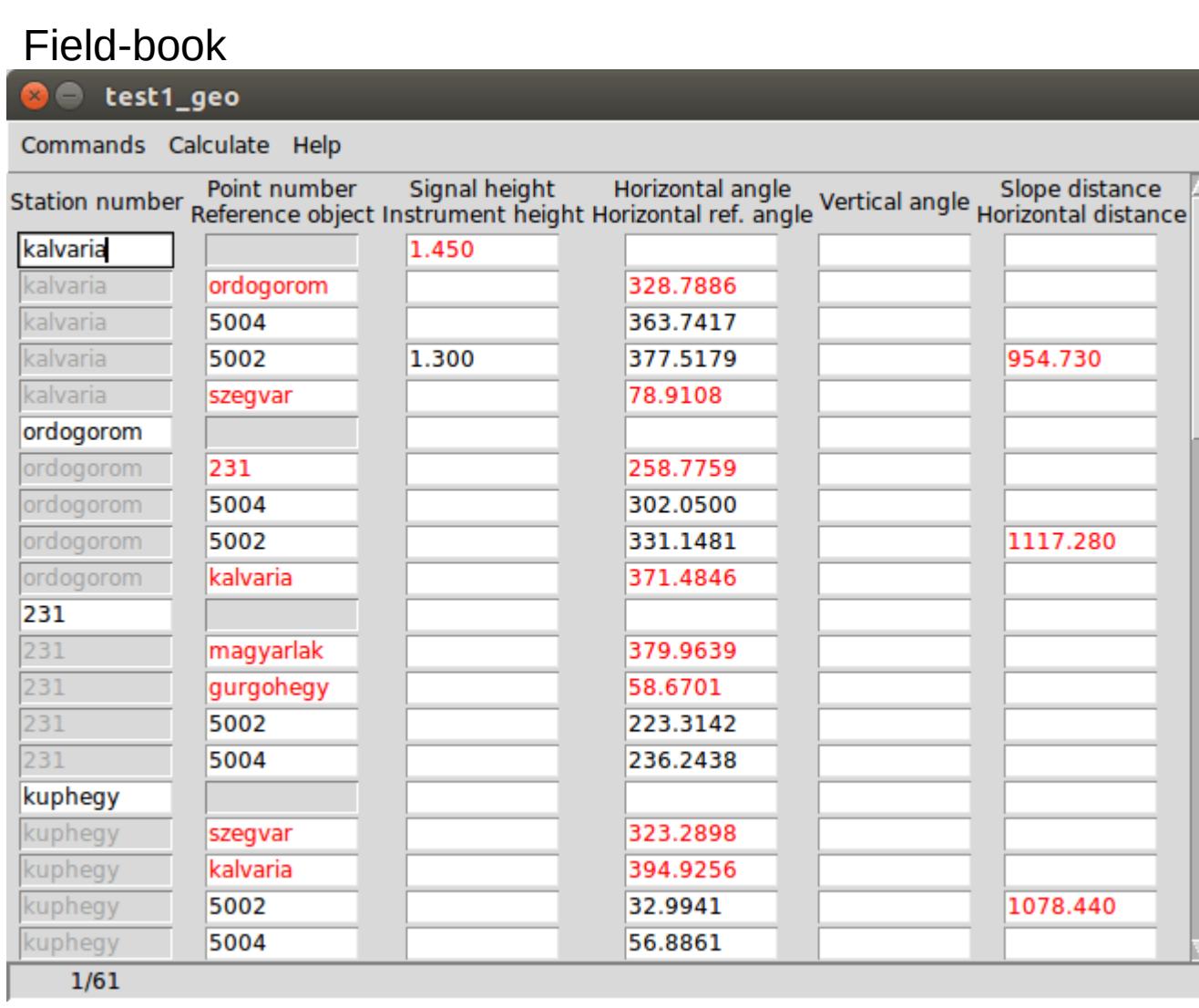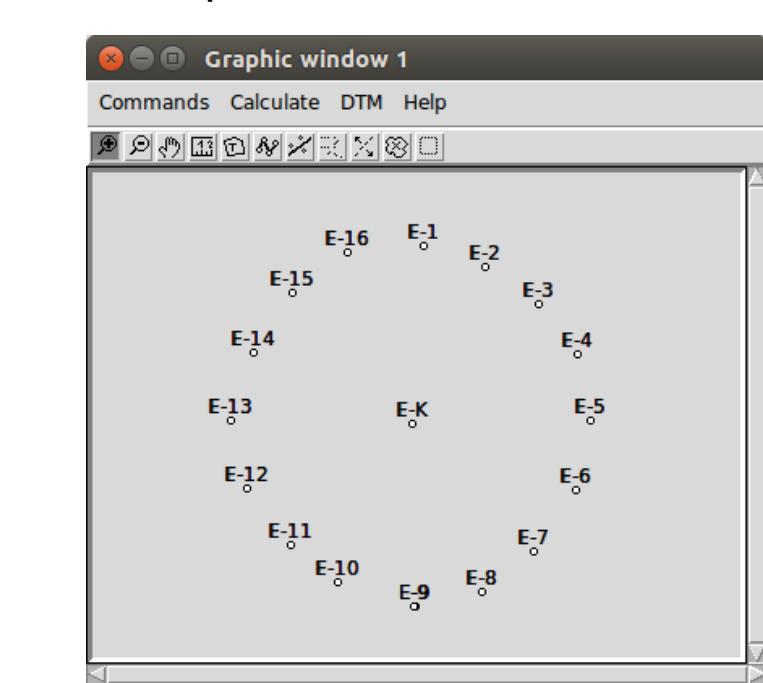
Download the binary releases for Windows and Linux:
http://digikom.hu/english/geo_easy_e.html

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

Today's Schedule:
6am   7 am - 5 pm
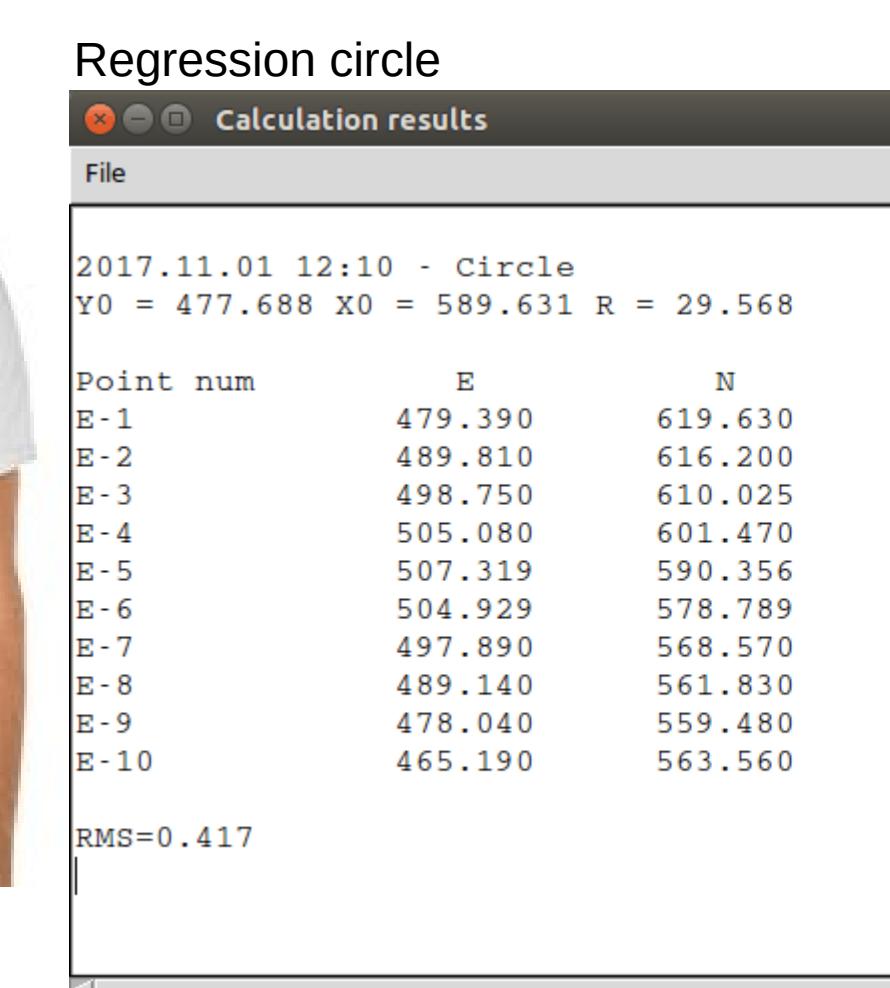
Surveying calculations
Edit field-books
Intersection, resection, orientation, ...
Traversing, trigonometric line
Coordinate transformations
Coordinate list and field-book import (several formats)
DXF export

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

TIN model (Triangle)

GeoEasy

Network adjustment (GNU Gama)
1D/2D/3D geodetic network
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, KML, DXF, ASCII GRID export
Update, regenerate

Graphic window

Exported GRID model in QGIS 3

Error ellipses in horizontal network

Adjustment results (GNU Gama)

Adjusted coordinates
****

i	point	approximate value [m]	correction [m]	adjusted value	std.dev [mm]	conf.i. [mm]
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

3D Map 1

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+
- 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

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

Exported (DXF) points in LibreCAD

Downloads 2017 October - 2019 October

OS 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)
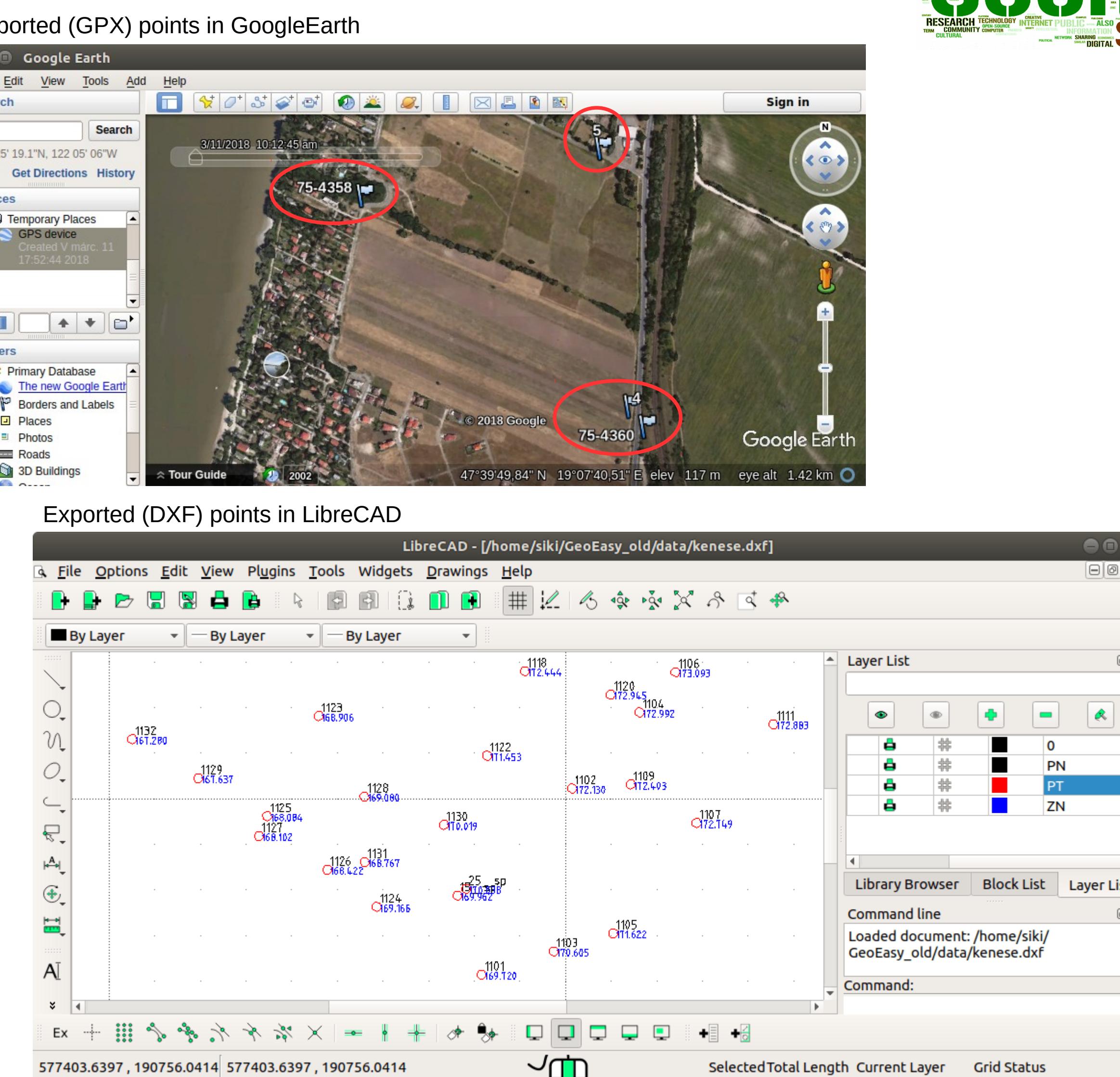
Let us develop GeoEasy together!
Source code available on GitHub (https://github.com/zsiki/GeoEasy)
Report the errors you found in issue tracker (https://github.com/zsiki/GeoEasy/issues)
Extend and correct the documentation (https://github.com/zsiki/GeoEasy/doc)
Help other users (https://github.com/zsiki/GeoEasy/wiki)

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