

STATIC SURVEY QUICK GUIDE

-DAVID(2024.01.08)

STATIC SURVEY QUICK GUIDE

Part A: How to do static survey? Procedures?

Part B: How to use SGO to process static data?

Part A: How to do static survey? Procedures?

- 1. Design a draft control network (on Google Earth)**
- 2. Make a plan of how to shift receiver**
- 3. Configure same settings for all receivers (static mode, recording interval, Mask Angle)**
- 4. Record static data in field**
(**MUST** fill Static Field Record Table)

Part A: How to do static survey? Procedures?

5. Download static data and modify static file name

- 1) Make backup for downloaded raw data
- 2) Modify the static data file name according to merged General Static Field Record table(very important)

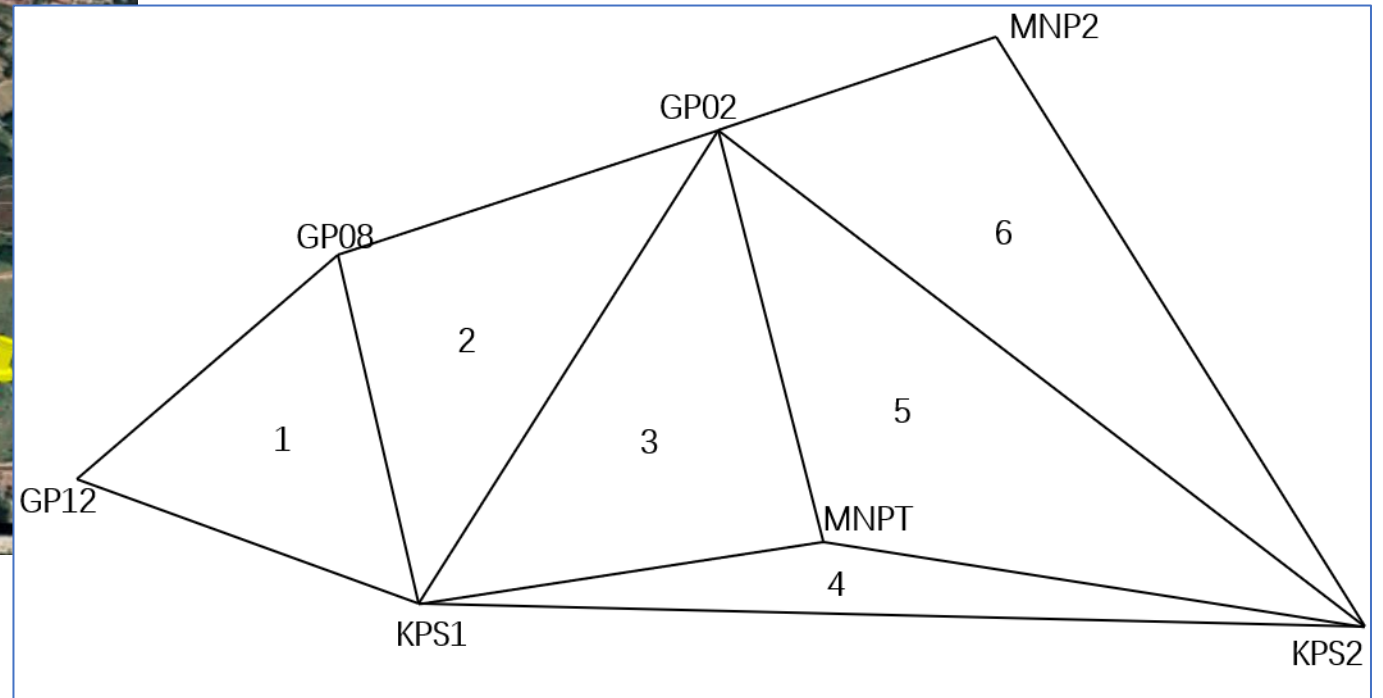
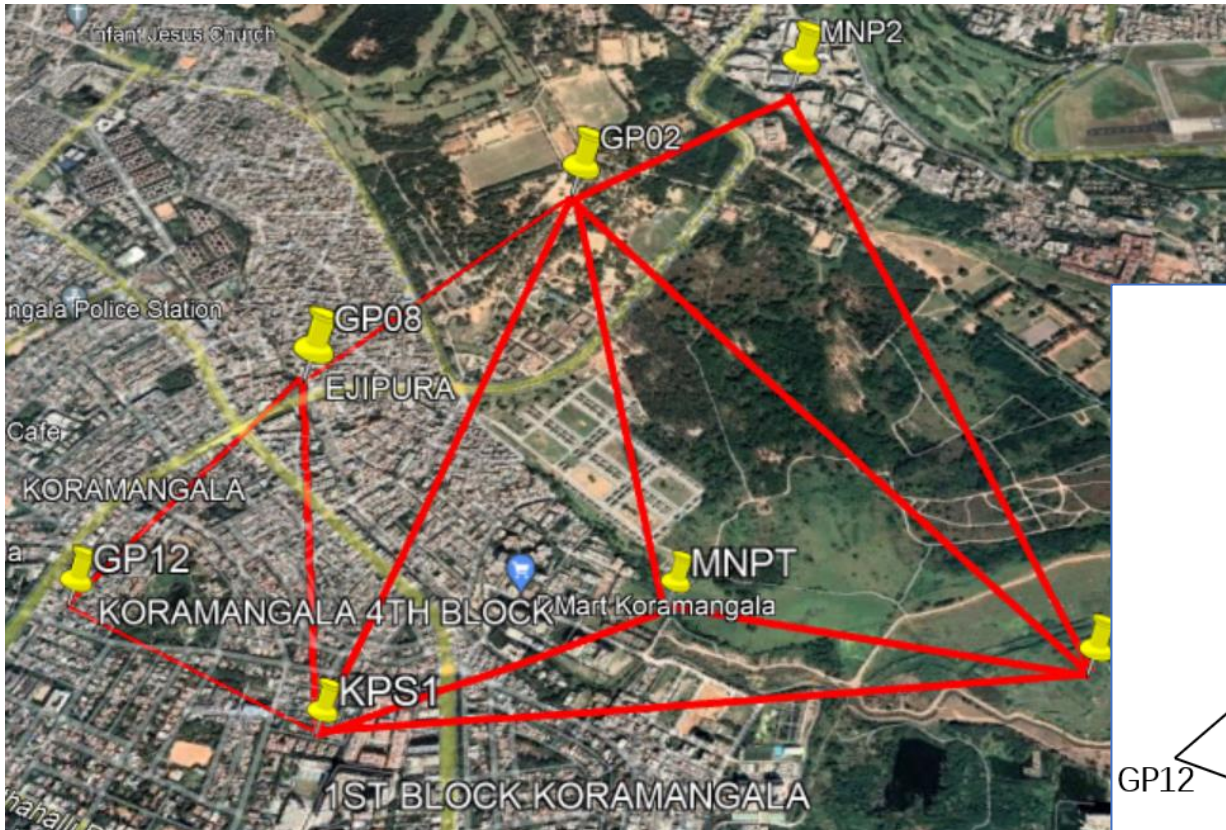
6. Everyday Import static data to SGO and process it

(To check network shape correct or not, and check baseline qualified or not)

7. Import all static data files to SGO for process after all field record complete

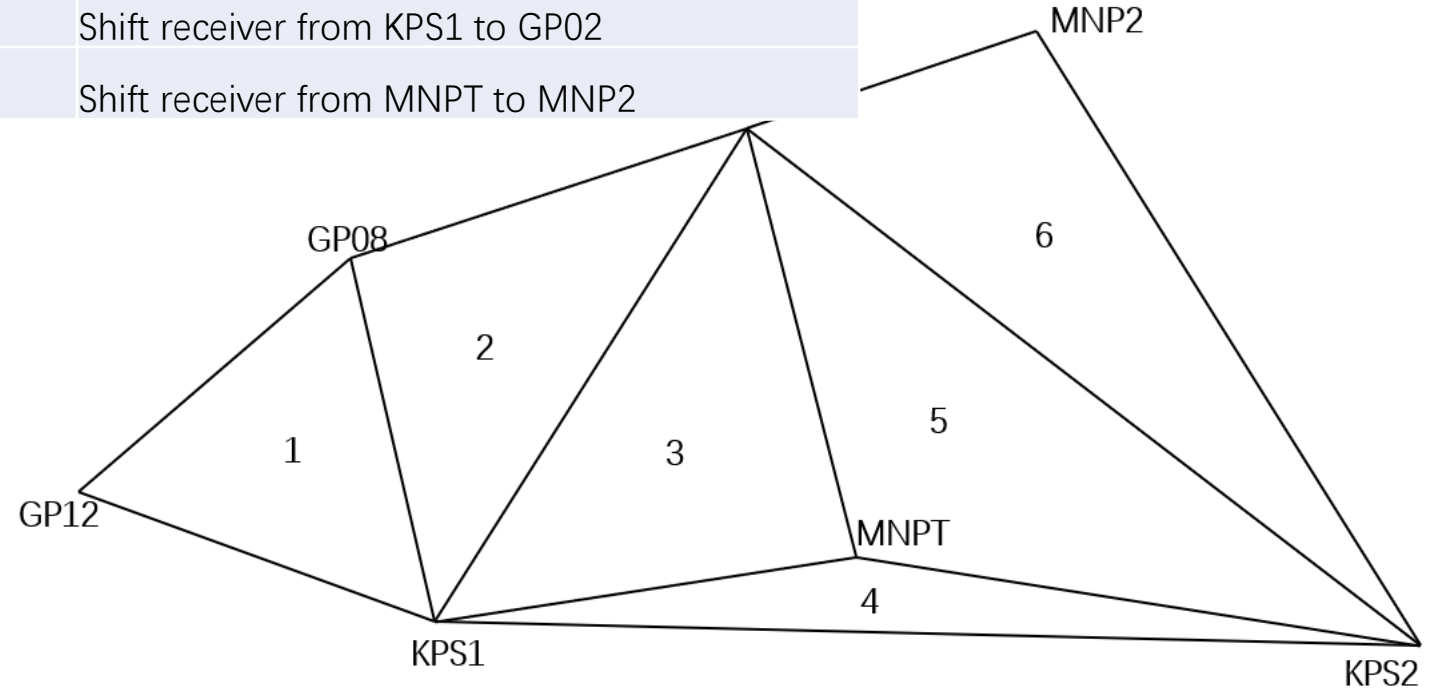
1. Design a draft control network (on Google Earth)

- Open google earth and decide where to put the receiver in field and make a mark on GE
- Manually draw a draft network map(as below) according.



2. Make a plan of how to shift receiver

	Triangle NO.	Triangle node	REMARKS
Day 1, morning	Triangle 1	GP12-GP08-KPS1	(GP12(Mr.Jason), KPS1(David), GP08(Jack))
Day 1, afternoon	Triangle 2	GP08-KPS1-GP02	Shift receiver from GP12 to GP02
Day 2, morning	Triangle 3	KPS1-GP02-MNPT	Shift receiver from GP08 to MNPT
Day 2, afternoon	Triangle 4	KPS1-MNPT-KPS2	Shift receiver from GP02 to KPS2
Day 3, morning	Triangle 5	MNPT-KPS2-GP02	Shift receiver from KPS1 to GP02
Day 3, afternoon	Triangle 6	KPS2-GP02-MNP2	Shift receiver from MNPT to MNP2



3. Before go field, need to do:

- 1) Make same setting for all receivers (Set it to static mode, recording interval (5" or 10", Mask angle(keep default 10 degree)
- 2) Print the designed draft network(or just draw it manually) and Field Record Table for every surveyor

In field, what a surveyor need to do:

- Power on receiver.
- Measure antenna height
- Fill the Static Survey_Field Record Table.
- Power off receiver
- Shift receiver to another location according the plan.

4. Record static data in field.

Fill the Static survey_Field Record Table (Very Important)

- 1) Every surveyor Must fill this table for every time field recording
- 2) Below is record for Triangle 1 (3 surveyors made 3 Field recording tables)

STATIC SURVEY_FIELD RECORD TABLE

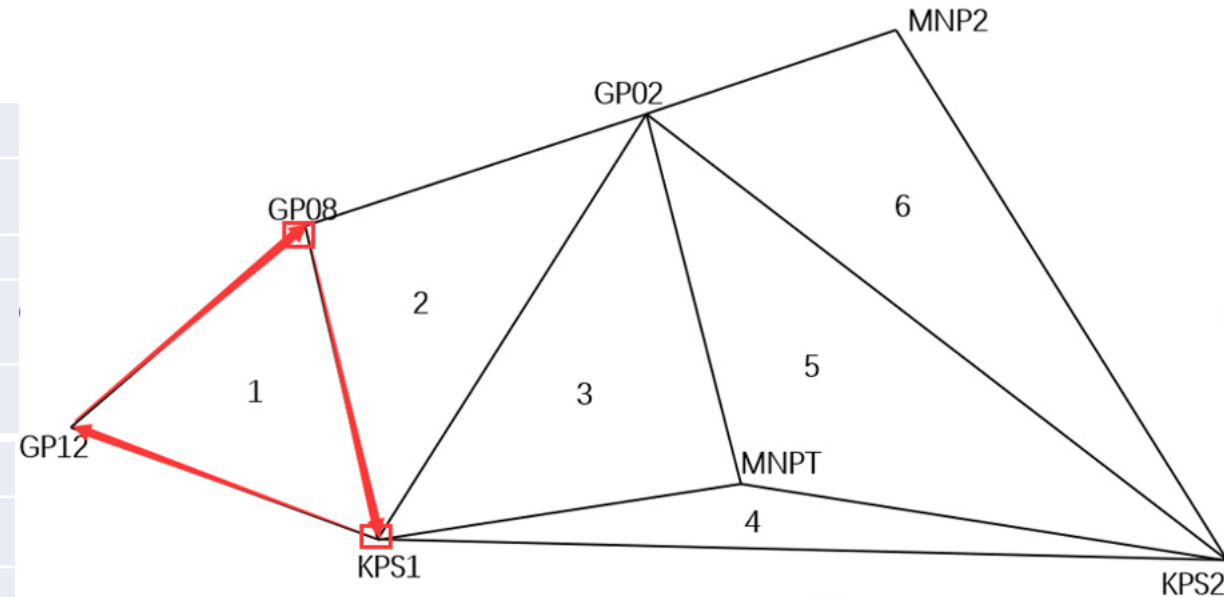
Recorder: Mr.Jason	Date: 2022-05-24			
Point Name (Control Point)	Receiver Serail No.	Ant H(m)	Start Time	End Time
GP12	SG11A6133352942	1.565	11:28	12:31

STATIC SURVEY_FIELD RECORD TABLE

Recorder: Mr.David	Date: 2022-05-24			
Point Name (Control Point)	Receiver Serail No.	Ant H(m)	Start Time	End Time
KPS1	SG11A6133436301	1.472	11:27	12:33

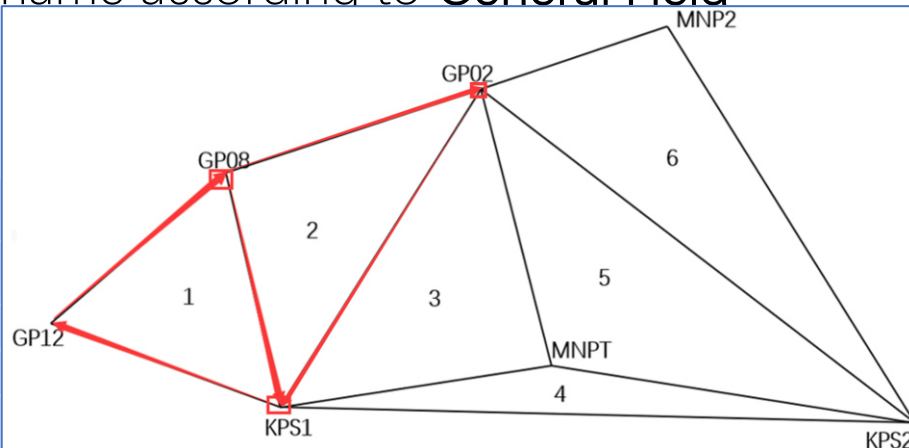
STATIC SURVEY_FIELD RECORD TABLE

Recorder: Mr. Jack	Date: 2022-05-24			
Point Name (Control Point)	Receiver Serail No.	Ant H(m)	Start Time	End Time
GP08	SG11A6133352800	1.469	11:30	12:32



5. Download static data file and modify the file name

1. Everyday merge 3 surveyor's Field Record Table into a **General Field Record Table**
2. Download static data file to computer and modify the static data file name according to **General Field Record Table** and the designed draft network.



STATIC SURVEY_FIELD RECORD TABLE

1 Triangle 1 (GP12-GP08-KPS1), 2022-05-24, morning time

Point Name (Control Point)	Receiver Serail No.	Ant H(m)	Start Time	End Time	Default static file name	Modify static file name as
GP12	SG11A6133352942	1.565	11:28	12:31	2942***.sth	GP12***.sth
GP08	SG11A6133352800	1.469	11:30	12:32	2800***.sth	GP08***.sth
KPS1	SG11A6133436301	1.472	11:27	12:33	6301***.sth	KPS1***.sth

2 Triangle 2 (GP08-KPS1-GP02), 2022-05-24, afternoon time

Point Name (Control Point)	Receiver Serail No.	Ant H(m)	Start Time	End Time	Default static file name	Modify static file name as
GP08	SG11A6133352800	1.423	14:30	15:31	2800***.sth	GP08***.sth
KPS1	SG11A6133436301	1.454	14:32	15:35	6301***.sth	KPS1***.sth
GP02	SG11A6133352942	1.523	14:29	15:01	2942***.sth	GP02***.sth

6. Everyday Import static data to SGO and process it (Very necessary)

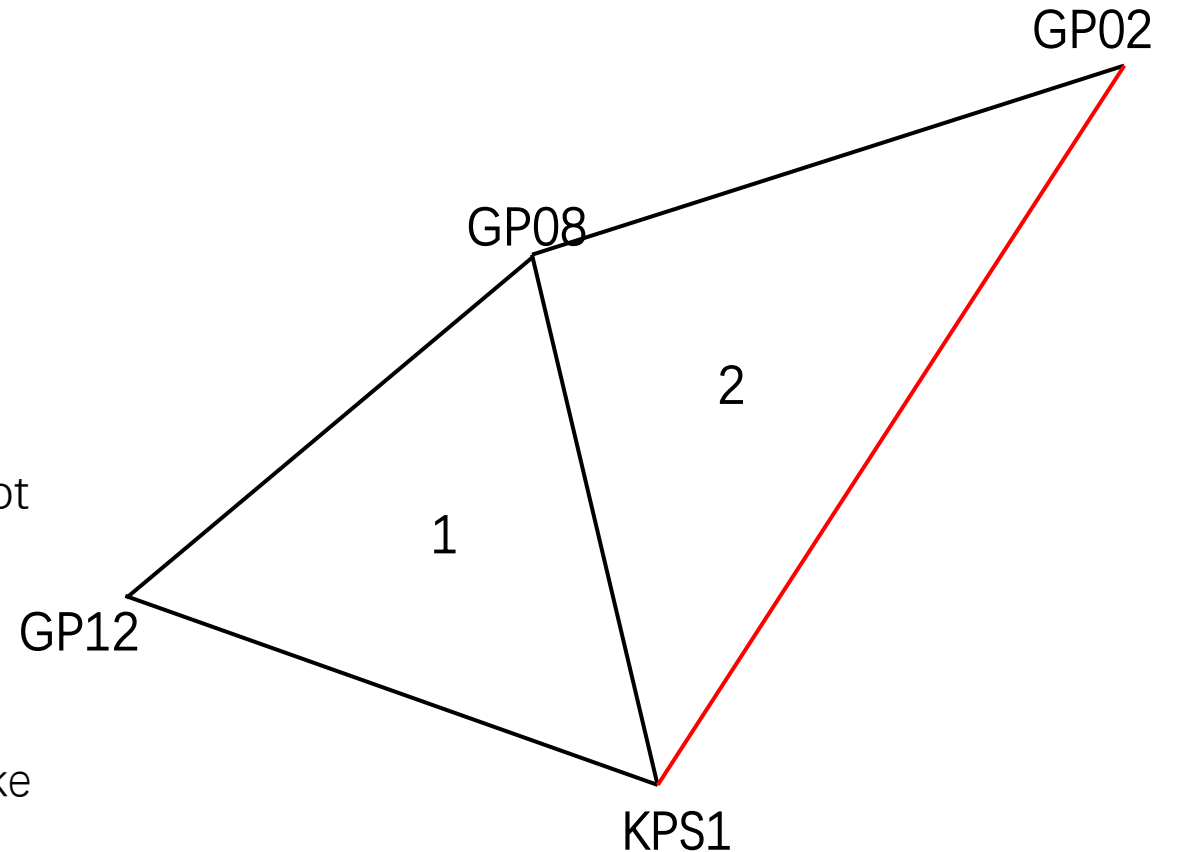
1) Import Day 1 static data (triangle 1 and 2) to SGO when day 1 field work complete.

Why need to do this everyday ?

1) Find real network shape is same as designed draft or not and check point name correct or not

2) Process it to find out if all baselines qualified or not.

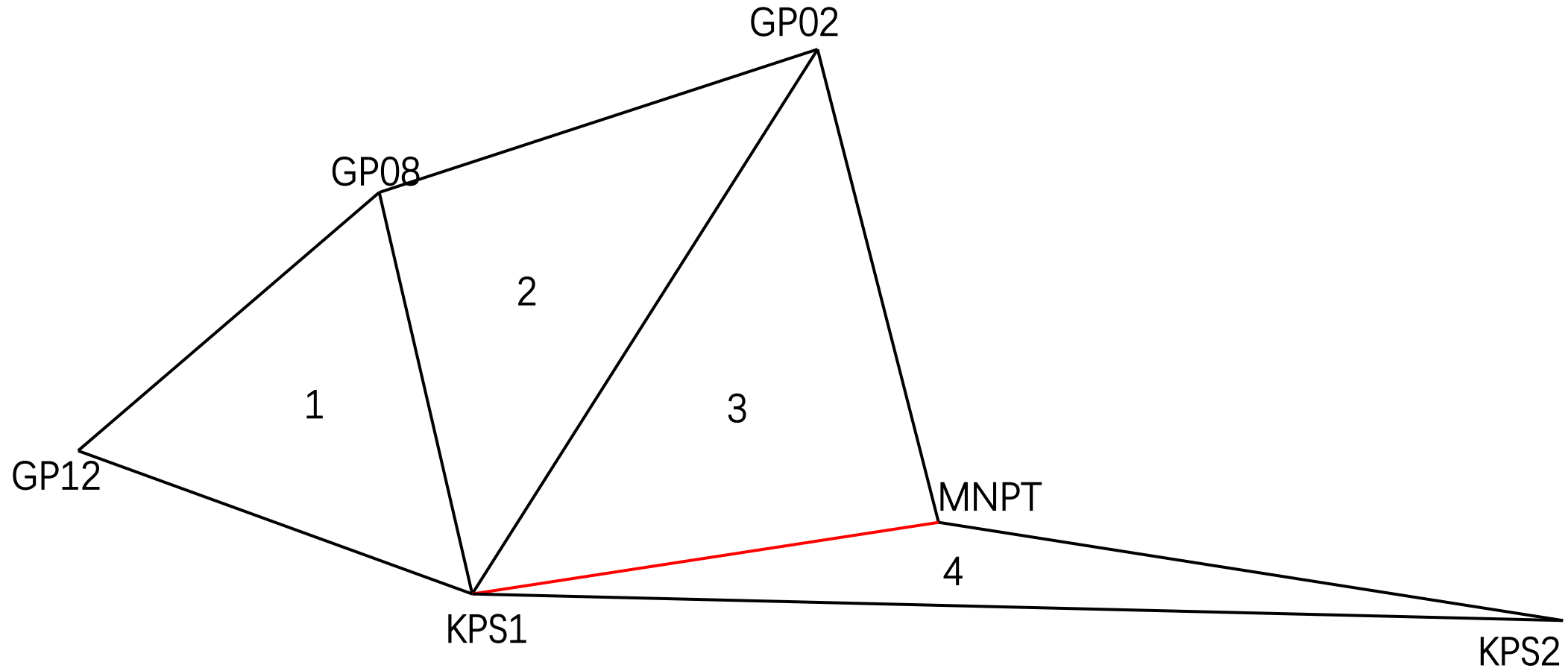
If some baseline not qualified(in red) and not possible to make it qualified by changing software setting, need to Re-record the static data of the affected triangle(like triangle 2)



Everyday Import static data to SGO and process it (Very necessary)

2) Import Day 1 and Day 2 static data to SGO when day 2 field work complete

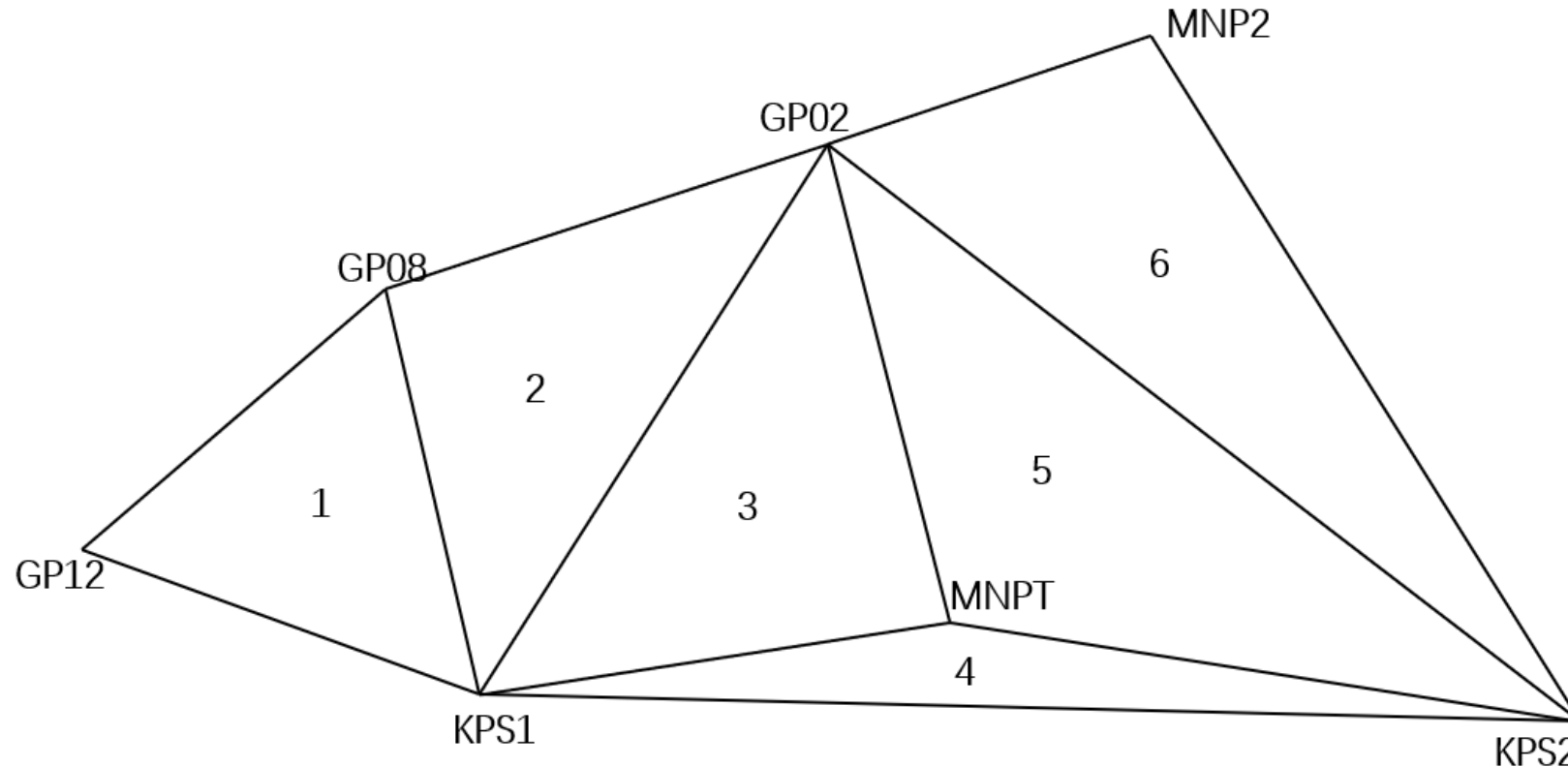
(Triangle 1, 2, 3, 4)



7. Import all static data to SGO and process it

Import all static data (Day 1, Day 2, Day 3) to SGO when day 3 field work complete

(all triangles, 1-6)



Part B: How to use SGO to process static data_1

1. New a project and set coordinate system parameters(Ellipsoid, Projection)
2. Import static data files to SGO.
3. Check station name (it shall be the same as the modified static file name(first 4 digits) and input antenna height

(Input antenna height one by one manually according to the merged General Field Record Table).

Part B: How to use SGO to process static data_1

4. Process baseline.

5. Input known point.

6. Network adjustment.

7. Output result.

1. New a project

Set coordinate system parameters

(Ellipsoid, Projection)

New project

Create a project based on metric units

Metric
Foot

Name

Path

OK

Project settings

General info
Coordinate system
Unit options
Closure loop tolerance
Import settings
Export settings
View options
Net adjustment control point
BaselineAdvancedSettings

Basic Expand

Ellipsoid

Ellipsoid Name	World Geodetic System 1984
Semi-major Axis	6378137.000000000
1/f	298.257223563

Projection

Method	UTM
Coordinate	North-East
Central Meridian(dd.mmss)	81.000000000000
Origin Latitude(dd.mmss)	0.000000000000
False Easting	500000.000
False Northing	0.000
Scale Factor	0.9996000000000
Projection Height	0.000
Average latitude(dd.mmss)	0.000000000000

7 parameters

Transform	No Transformatton
-----------	-------------------

Predefined Coordinate system management OK Cancel Apply

2. Import static data file to SGO

[Common operation]-[Import]

The screenshot displays the SGO (South Geomatics Office) software interface. The 'Common operation' menu is open, showing the 'Import' option. The 'Import' dropdown menu is expanded, listing various import options: 'Import observations file', 'Import RW5 file', 'Import EGStar3.0 project', 'Import EGStar5.0 project', 'Import Survstar Project', 'Import basemap', 'ImportBaseline', and 'ImportCoordSys'. The 'Import observations file' option is highlighted.

The 'Select import data' dialog box is open, showing a file explorer view of the 'C:/Users/lenovo/Desktop/x5555/client static data_m_part of data' directory. The 'Data preview' table lists 14 files:

	Data preview
1	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TB43120EH.sth
2	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TB44120B0.sth
3	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TB45120B2.sth
4	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TB46120EL.sth
5	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TB65120FA.sth
6	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TB66120FA.sth
7	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TBM112092.sth
8	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TP01120A5.sth
9	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TP02120AB.sth
10	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TP03120AS.sth
11	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TP061209D.sth
12	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/TP071209O.sth
13	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/aaaa120A9.sth
14	C:/Users/lenovo/Desktop/x5555/client static data_m_part of data/bbbb1209J.sth

The 'Current path' field is set to 'C:/Users/lenovo/Desktop/x5555/client static data_m_part of data'. The 'Data type' is set to '*.*'.

3. Check station name and antenna height

1) If not, change station name manually from here

2) Input antenna height one by one manually

----According to the merged General Field Record Table

STATIC SURVEY_FIELD RECORD TABLE

Recorder: Mr. Jason

Date: 2022-04-25

Station name	File name	Starting time	Ending time
1	TB43	TB43120EH.sth	2022-04-30 17:05:02
2	TB44	TB44120B0.sth	2022-04-30 13:30:00
3	TB45	TB45120B2.sth	2022-04-30 13:35:42
4	TB46	TB46120EL.sth	2022-04-30 17:13:46
5	TB65	TB65120FA.sth	2022-04-30 17:50:50
6	TB66	TB66120FA.sth	2022-04-30 17:50:10
7	TBM1	TBM112092.sth	2022-04-30 11:35:40
8	TP01	TP01120A5.sth	2022-04-30 12:41:18
9	TP02	TP02120AB.sth	2022-04-30 12:53:40
10	TP03	TP03120AS.sth	2022-04-30 13:26:50
11	TP06	TP061209D.sth	2022-04-30 11:56:58
12	TP07	TP071209O.sth	2022-04-30 12:18:20

SGO Edit station info

Modify station properties
 Station properties

Modify antenna info
 Antenna properties

Manufacturer: SOUTH

Antenna type: HX-CSX049A

Antenna height: 1.456

Antenna H reference: Measuring plate

STATION NAME	RECEIVER ID	ANT H(m)	Start Time	End Time	SESSION	Default static file name	To change file name as
TP03	SG11A6133352942	1.565	11:28	12:31	1	2942217F3.sth	TP03120AS.sth
GP08	SG11A6133352800	1.469	13:15	14:28	1	2800218B2.sth	GP08218B2.sth
GP08	SG11A6133352800	1.469	14:40	15:50	2	2800218B3.sth	GP08218B3.sth
KPS1	SG11A6133352942	1.472	11:27	12:33	1	2942217F4.sth	KPS1217F4.sth

Selece all Note: Change ID for point(s) while necessary!

From where we can modify station name and antenna height

The screenshot displays the SGO (South Geomatics Office) software interface. The main window shows a project manager on the left with a list of stations (AAAA, BBBB, CCCC, DDDD, EEEE, FFFF) and baselines. The 'Station info' dialog box is open, allowing for the modification of station properties and antenna information. The 'Station name' field is highlighted with a red box, and the 'Antenna height' field is also highlighted with a red box. The 'Modify' button at the bottom of the dialog is also highlighted with a red box.

Station Info Table:

Station ID	Station name	Station coordinates
1	AAAA	2906138EH_R_202
2	BBBB	2906138EN_R_202
3	CCCC	2906138EP_R_202
4	DDDD	2906138F1_R_202
5	EEEE	2906138F6_R_202
6	FFFF	2906138FB_R_202

Edit station info dialog box details:

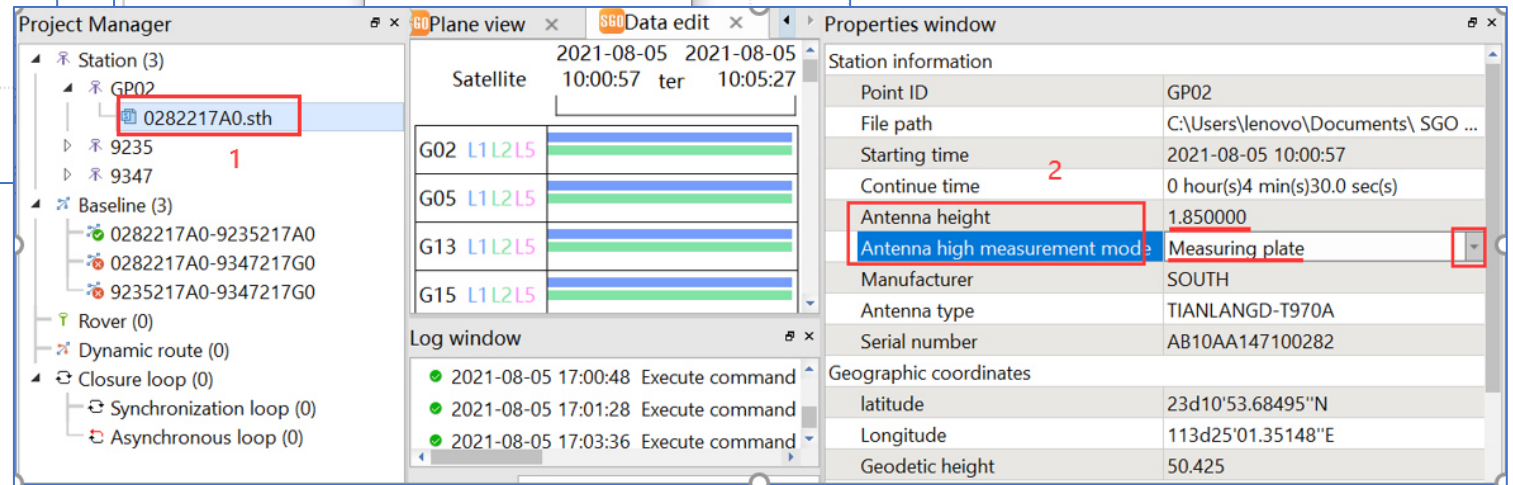
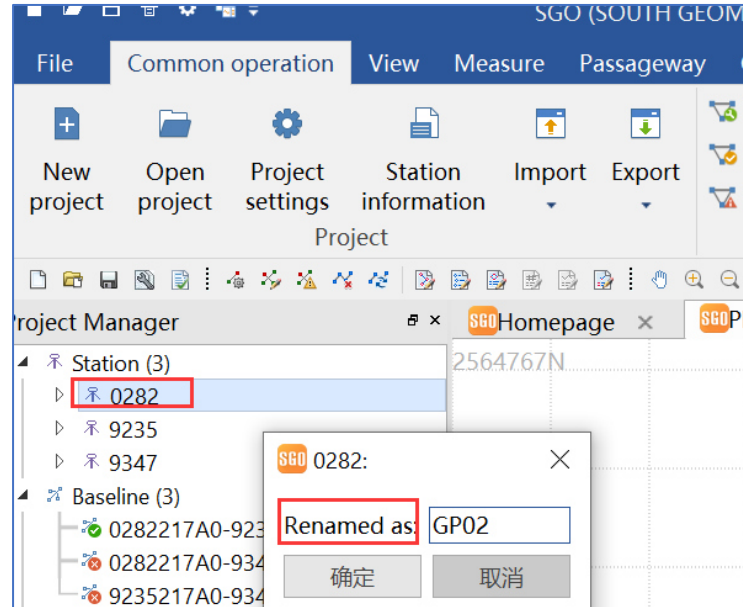
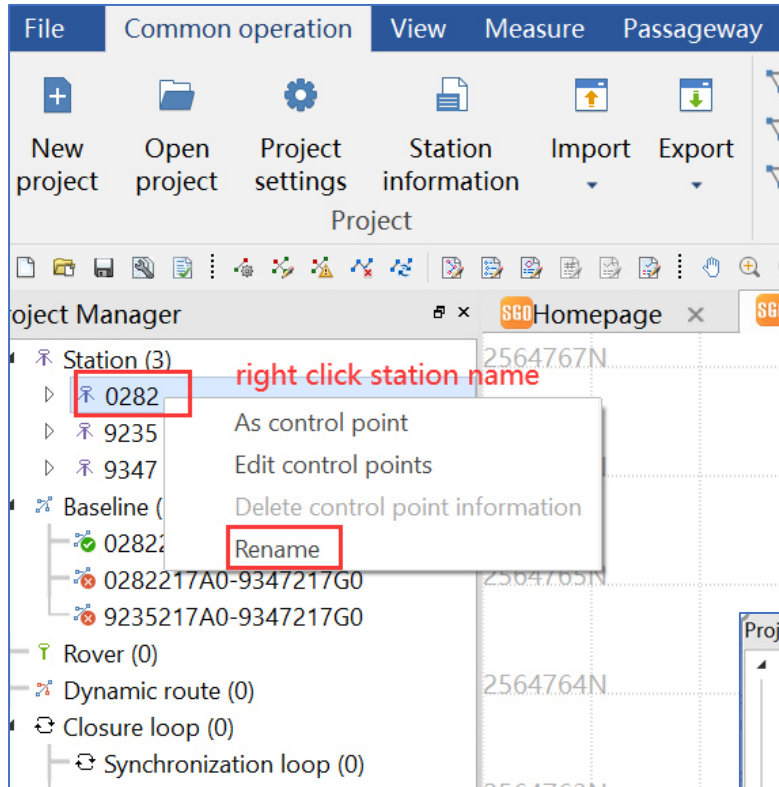
- Station name: AAAA
- Modify station properties
- Station properties: Static
- Modify antenna info
 - Manufacturer: SOUTH
 - Antenna type: G7-C
 - Antenna height: 1.371
 - Antenna H reference: Measuring plate

Buttons: OK, Cancel, **Modify**, Selece all, Import ATX, Restore ANT, Export, Import, OK, Cancel

Another method to change station name and antenna height

Firstly import static data to SGO, later modify station name and input antenna height

(This method is not recommended, but also works)



4. Process baseline

The screenshot shows the 'Process baseline' dialog box in a software application. The main window title is 'SGO (SOUTH GEOMATICS OFFICE)--C:'. The 'Common operation' menu is open, showing options like 'Baseline process settings', 'Process baseline', and 'Process unqualified baselines'. The 'Process baseline' option is highlighted with a red box.

The 'Process baseline' dialog box contains a table with the following columns: Baseline, Synchronised time, Solution type, Fixed ratio, RMS(m), HRMS(m), VRMS(m), RMS Lmt(m), and Baseline length. Row 12 is selected and highlighted in blue.

		Baseline	Synchronised time	Solution type	Fixed ratio	RMS(m)	HRMS(m)	VRMS(m)	RMS Lmt(m)	Baseline length
6	<input checked="" type="checkbox"/>	TB45120B2-TBM112092	0 hour(s)16 min(s)6.0 sec(s)	Fixed	34.747	0.004	0.002	0.004	0.050	506.401
7	<input checked="" type="checkbox"/>	TB45120B2-TP03120AS	0 hour(s)8 min(s)8.0 sec(s)	Fixed	25.112	0.006	0.002	0.005	0.050	700.291
8	<input checked="" type="checkbox"/>	TB46120EL-TBM112092	0 hour(s)17 min(s)44.0 sec(s)	Fixed	18.554	0.008	0.004	0.007	0.049	177.321
9	<input checked="" type="checkbox"/>	TB65120FA-TB66120FA	0 hour(s)14 min(s)6.0 sec(s)	Fixed	6.526	0.009	0.005	0.008	0.049	20.285
10	<input checked="" type="checkbox"/>	TB65120FA-TBM112092	0 hour(s)15 min(s)52.0 sec(s)	Fixed	26.785	0.013	0.005	0.011	0.051	1436.78
11	<input checked="" type="checkbox"/>	TB66120FA-TBM112092	0 hour(s)14 min(s)46.0 sec(s)	Fixed	3.664	0.026	0.016	0.021	0.051	1423.72
12	<input checked="" type="checkbox"/>	TBM112092-TP01120A5	0 hour(s)15 min(s)42.0 sec(s)	Fixed	13.232	0.004	0.002	0.004	0.050	774.331
13	<input checked="" type="checkbox"/>	TBM112092-TP02120AB	0 hour(s)17 min(s)0.0 sec(s)							
14	<input checked="" type="checkbox"/>	TBM112092-TP03120AS	0 hour(s)17 min(s)0.0 sec(s)							
15	<input checked="" type="checkbox"/>	TBM112092-TP061209D	0 hour(s)16 min(s)38.0 sec(s)							
16	<input checked="" type="checkbox"/>	TBM112092-TP071209O	0 hour(s)16 min(s)40.0 sec(s)							
17	<input checked="" type="checkbox"/>	TBM112092-aaaa120A9	0 hour(s)16 min(s)2.0 sec(s)							

At the bottom of the dialog box, there are buttons for 'Batch Modify', 'Process', 'Stop', 'Advanced', and 'Close'. The 'Process' button is highlighted with a red box. Below the buttons, the status bar shows '(17/22)Process baseline - TBM112092-TP02120AB' and '100%'.

If a baseline is **qualified**, it turns **green color**.
If **unqualified**, it is **grey color**(as below)

The screenshot displays a software application window titled "SGO (SOUTH GEOMATICS OFFICE)--C:\Users\lenovo\Documents\SG". The interface includes a menu bar with options like "File", "Common operation", "View", "Measure", "CAD", "Tools", "GIS", and "Cloud". Below the menu is a toolbar with various icons. The "Project manager" panel on the left shows a tree view with "Station (14)" and "Baseline (22)". The "Baseline (22)" list contains 16 entries, each with a green checkmark icon, indicating they are qualified. The main workspace shows a network diagram with nodes labeled GP12, GP08, GP02, MNP2, MNPT, KPS1, and KPS2. The connections between these nodes are represented by green lines, signifying qualified baselines. A red arrow points to the "SGOPlane view" tab in the project manager.

Station (14)

Baseline (22)

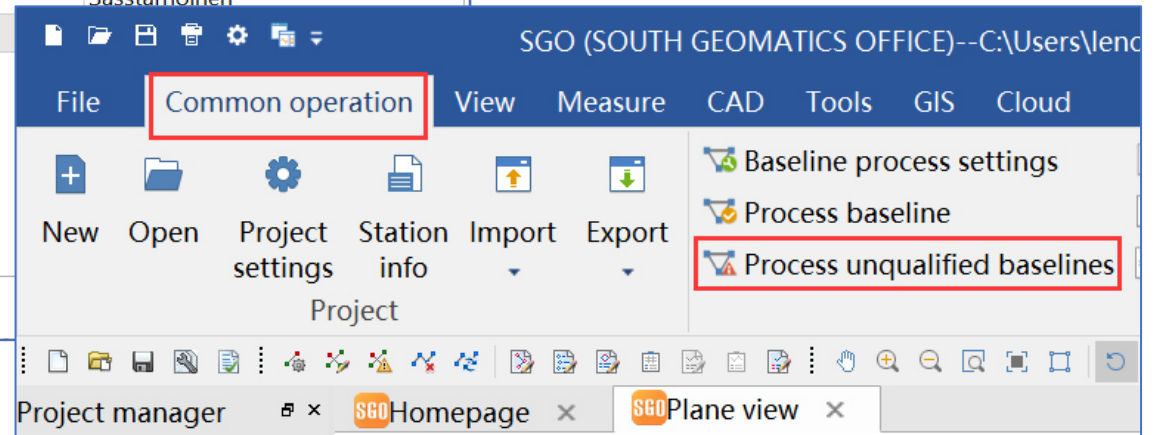
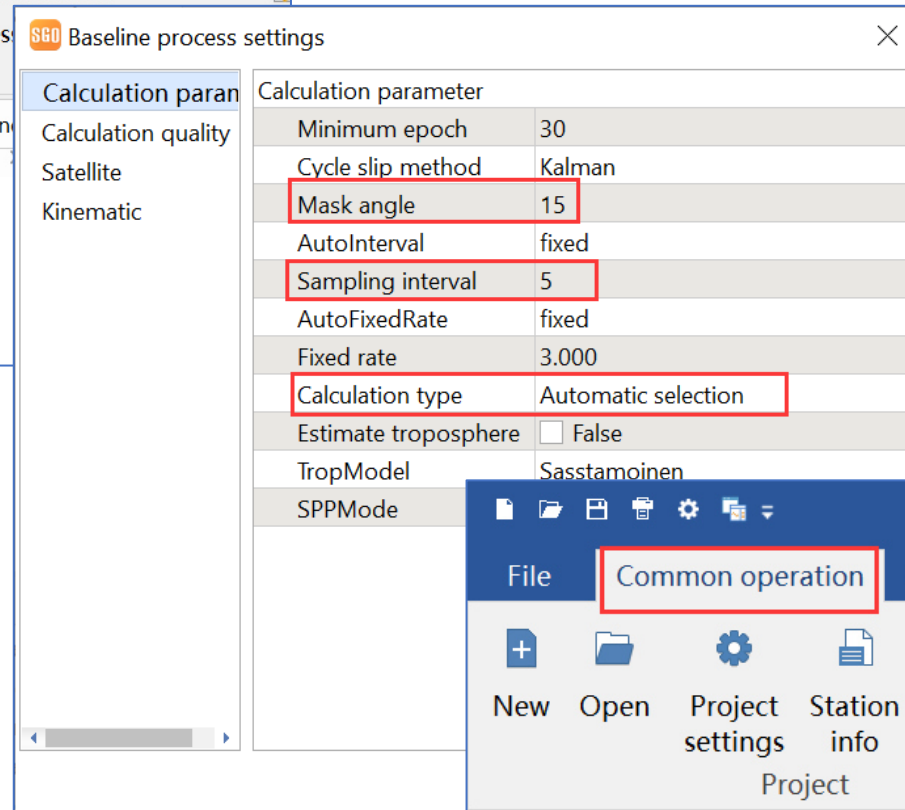
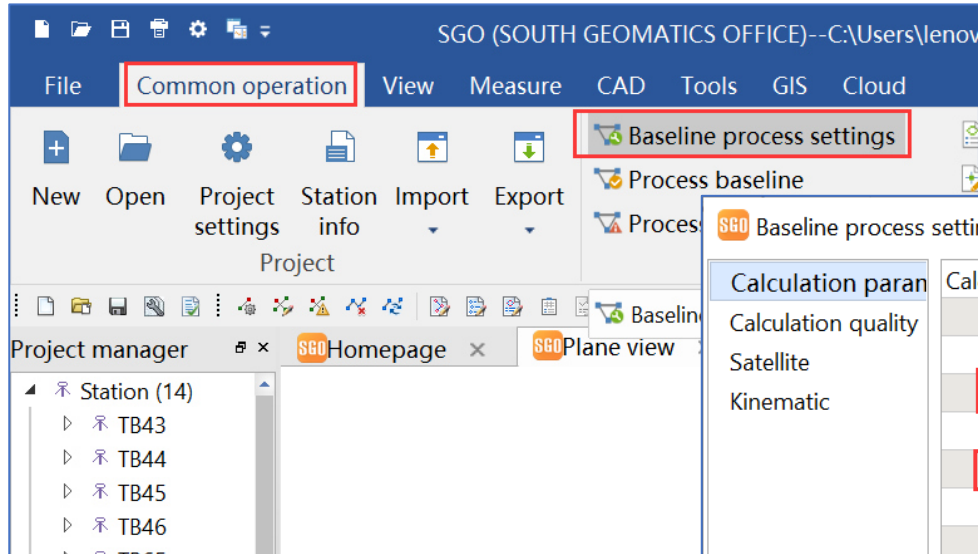
- B0(TB43120EH-TB46120EL)
- B1(TB43120EH-TBM112092)
- B2(TB44120B0-TB45120B2)
- B3(TB44120B0-TBM112092)
- B4(TB44120B0-TP03120AS)
- B5(TB45120B2-TBM112092)
- B6(TB45120B2-TP03120AS)
- B7(TB46120EL-TBM112092)
- B8(TB65120FA-TB66120FA)
- B9(TB65120FA-TBM112092)
- B10(TB66120FA-TBM112092)
- B11(TBM112092-TP01120A5)
- B12(TBM112092-TP02120AB)
- B13(TBM112092-TP03120AS)
- B14(TBM112092-TP061209D)
- B15(TBM112092-TP071209O)
- B16(TBM112092-aaaa120A9)

GP12, GP08, GP02, MNP2, MNPT, KPS1, KPS2

Execute command ZoomIn Successfully! (Upload message:?)

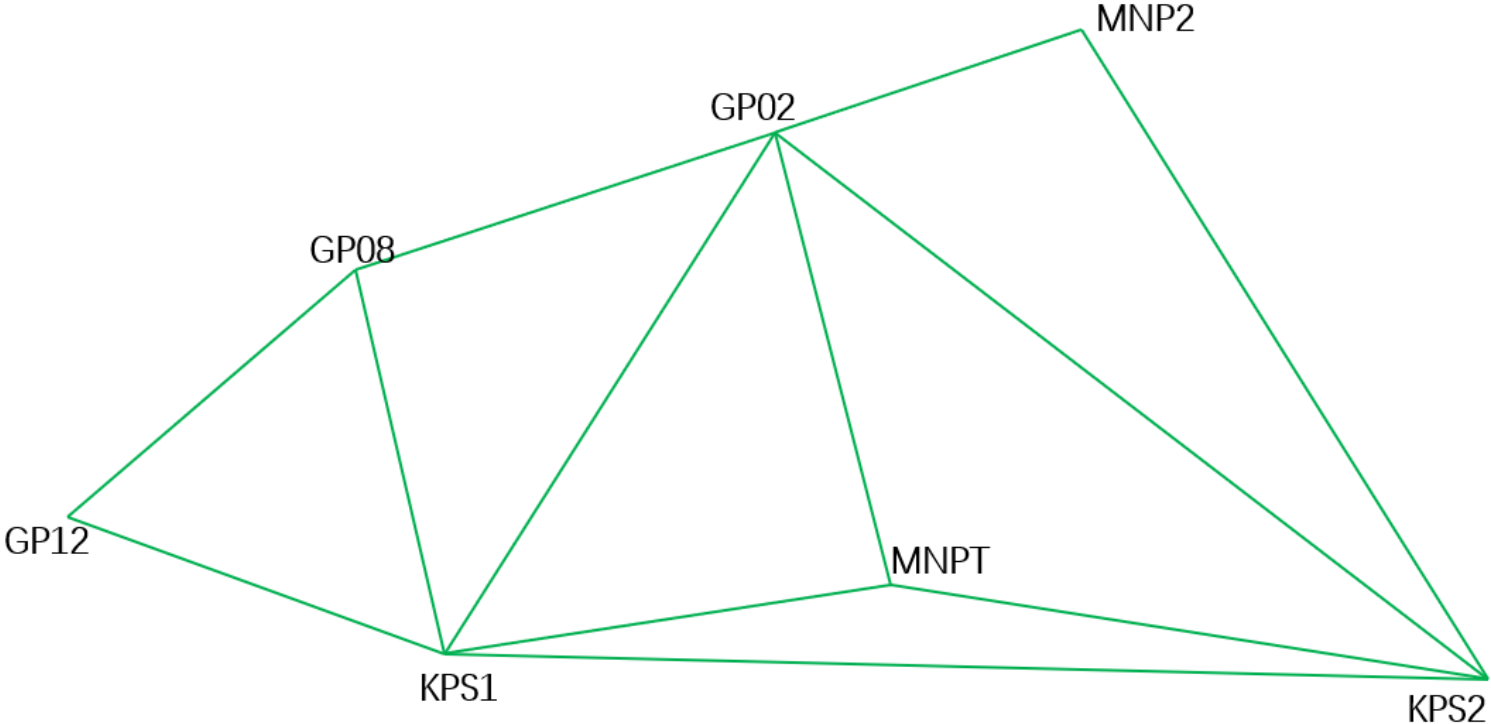
If Baseline not qualified, what need to do?

--Change settings in [Baseline process settings]



After changing settings in [Baseline process settings] and try to process unqualified baseline again. It becomes qualified !

This image shows baseline(KPS1-MNPT) qualified(green color) after changing settings and being processed again



5. Input known point

(Right click a station , choose Edit control point, then click Add button to input known point)

The screenshot displays a software interface for station management. On the left, a 'Project manager' window shows a tree view of stations (TB43 to TP07, aaaa, bbbb) and baselines (B0, B1, B2). The 'Station (14)' folder is expanded, and 'TBM1' is highlighted with a red box. A context menu is open over 'TBM1', with 'Edit control points' selected and highlighted with a red box. In the background, a 'Log window' shows a list of stations with dates: 2022-05-16, 2022-05-16, and 2022-05-16.

The main window is titled 'Edit control point' and contains a table with the following data:

Point	Enable	North	East	Elevation	X	Y	Z	Latitude(DD.MMSS)	Longitude(DD.MMSS)	Ellipsoi
1 TBM1	NEH	50000	50000	500						

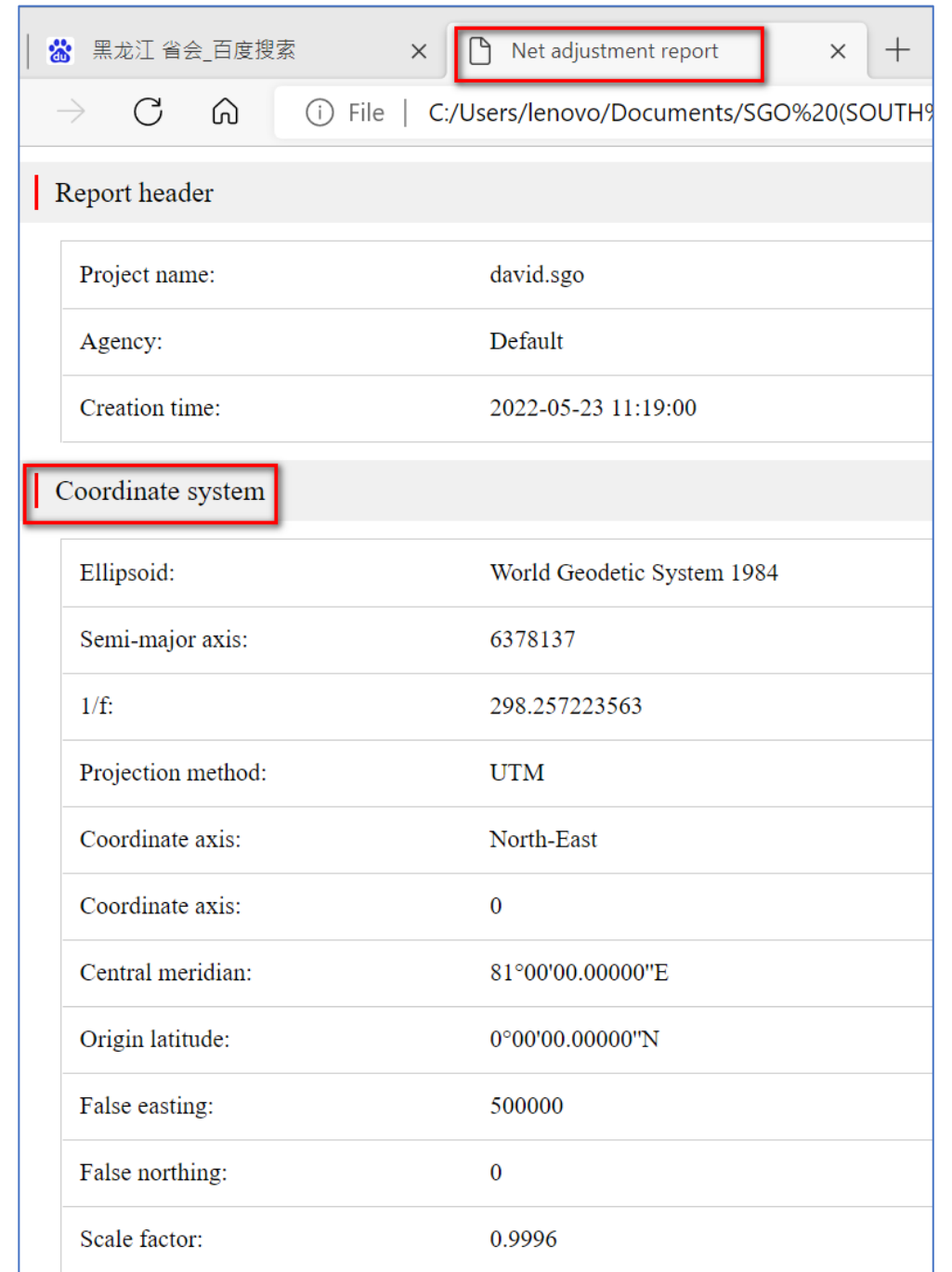
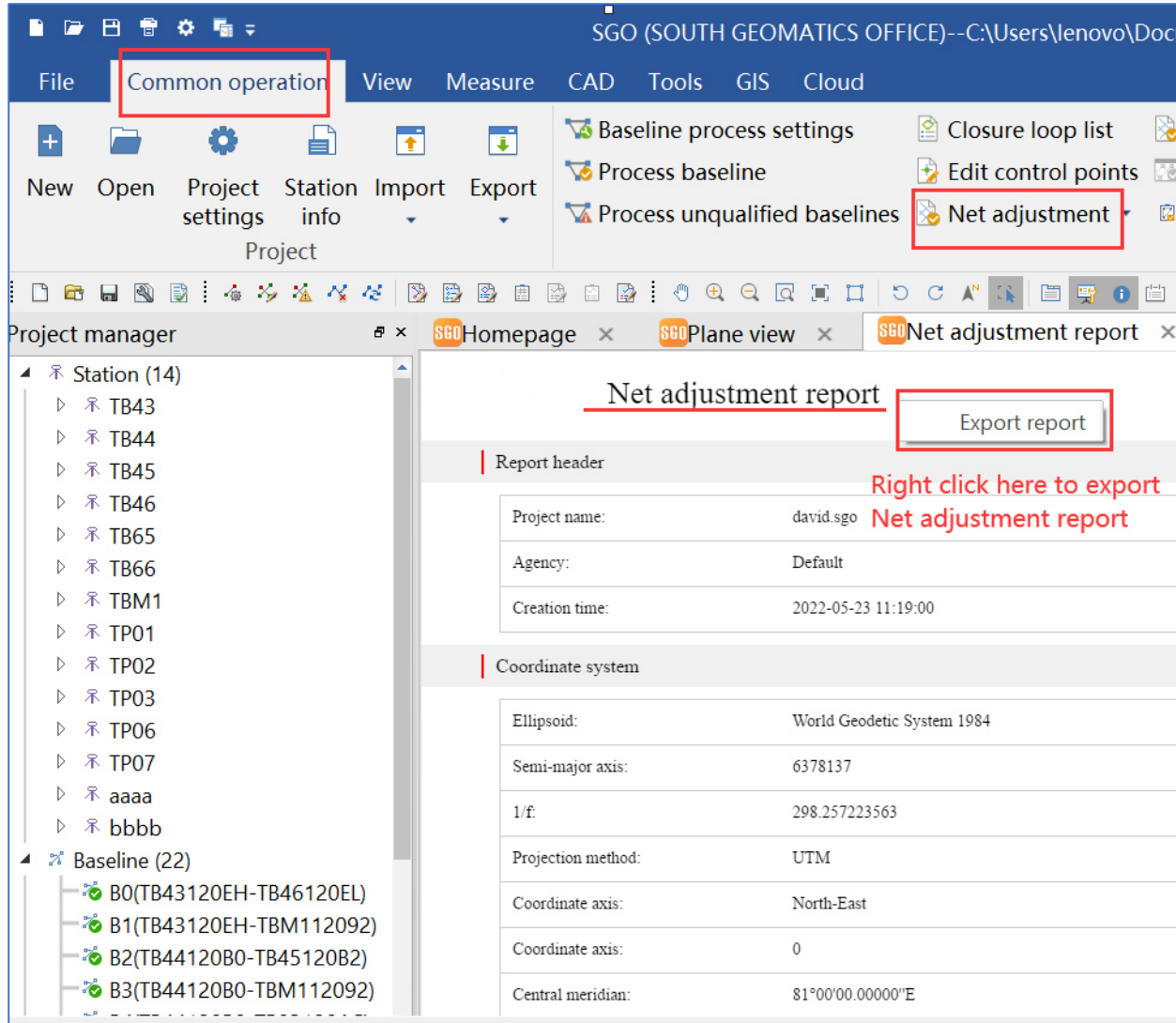
The 'North', 'East', and 'Elevation' columns for the first row are highlighted with a red box. A red box labeled '3' is positioned below the 'Elevation' column. A dropdown menu is open below the table, showing a list of stations: TB43, TB44, TB45, TB46, TB65, TB66, TBM1 (highlighted with a red box and labeled '2'), TP01, and TP02.

At the bottom of the window, there are buttons for 'Import control points', 'Export control point', 'Space and geodetic coord', 'Target coordinate sys', 'Add' (highlighted with a red box and labeled '1'), 'Delete', 'Ok', and 'Cancel'.

6. Network adjustment.

[Common operation]-[Net adjustment]

Right click any area of Net Adjustment report to export report(Html format)



Word format Net adjustment report

[File]-[Project settings]-[Export settings], Export report format, choose Doc format.

It will open a WORD document automatically named Net Adjustment Report which is Word format Net adjustment report.

(For some computer, due to Microsoft office installation is not perfect, so it might not output WORD format report successfully)

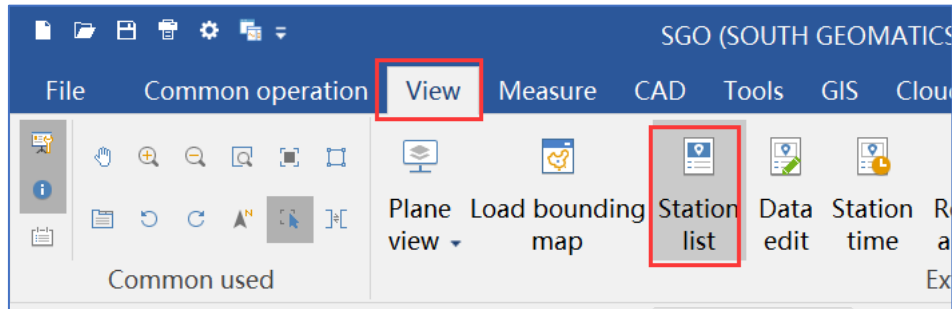
The screenshot shows the SGO (SOUTH GEOMATICS) software interface. The 'File' menu is open, and 'Project settings' is selected. The 'Project settings' dialog box is open, and 'Export setting' is selected. The 'Export report format' dropdown menu is open, showing 'DOC format' selected.

Public option	
Export report format	HTML format
Network adjustment report settings	
Coordinate system	DOC format
Gnss network diagram	True
Repeated baseline	False
Closed loop	False
3D known point information	True
2D known point information	True
Free adjustment results	True
Baseline correction number	True
3D adjustment results	True
2D adjustment results	True
Two-dimensional baseline and correction number	True
Two-dimensional adjustment point coordinates	True

7. Output result.

[View]-[Station list]

(TBM1 is the known point(5000,5000,500))



	Station name	Coordinate quality	North(m)	East(m)	h(m)
1	TB43	Adjusted Adjusted	4779.056	5057.048	495.899
2	TB44	Adjusted Adjusted	4625.093	4638.631	418.687
3	TB45	Adjusted Adjusted	4674.735	4621.118	413.844
4	TB46	Adjusted Adjusted	4830.287	5051.775	498.326
5	TB65	Adjusted Adjusted	6086.079	4058.108	482.409
6	TB66	Adjusted Adjusted	6086.264	4078.396	483.028
7	TBM1	Control point Contr.	5000.000	5000.000	500.000
8	TP01	Adjusted Adjusted	4267.359	4755.585	437.762
9	TP02	Adjusted Adjusted	4836.165	5432.770	499.656
10	TP03	Adjusted Adjusted	4688.591	5316.933	495.678
11	TP06	Adjusted Adjusted	4451.080	5037.400	482.182
12	TP07	Unknown Unknown	1640852.334	201823.602	379.194
13	aaaa	Adjusted Adjusted	4161.818	4802.500	443.893
14	bbbb	Adjusted Adjusted	4452.778	4910.430	481.373

Output result, save result file(csv,txt,dat format)

(Right click any area of station list page to export result file)

The screenshot shows the SGO software interface with the 'Station list' window active. The table displays station data with columns for Station name, Coordinate quality, North(m), East(m), and h(m). A right-click context menu is open over the table, with 'Export points' highlighted. A red box highlights the 'Export points' option, and a red arrow points to the table area with the text 'Right click here'.

	Station name	Coordinate quality	North(m)	East(m)	h(m)
1	TB43	Adjusted Adjusted	4779.056	5057.048	495.899
2	TB44	Adjusted Adjusted	4625.093	4638.631	418.007
3	TB45	Adjusted Adjusted	4674.735	4621.118	413.844
4	TB46	Adjusted Adjusted	4830.287	5051.775	498.326
5	TB65	Adjusted Adjusted	6086.079	4058.108	482.409
6	TB66	Adjusted Adjusted	6086.264	4078.396	483.028
7	TBM1	Control point Co..	5000.000	5000.000	500.000
8	TP01	Adjusted Adjusted	4267.359	4755.585	437.762
9	TP02	Adjusted Adjusted	4836.165	5432.770	499.656

The screenshot shows a Windows File Explorer window titled 'Export points'. The 'File name' field contains 'david'. The 'Save as type' dropdown menu is open, showing options for *.csv, *.txt, and *.dat. The *.csv option is selected. The background shows a folder structure with 'client static data_m_part' selected.

Open result file(csv, txt, dat format)

Point name	Quality	North	East	Elevation	X(ECEF)	Y(ECEF)	Z(ECEF)	B	L	H
TB43	Static point	4779.056	5057.048	495.899	1258472.379	6037786.359	1621420.603	14°49'27.88839"	78°13'34.50826"	368.997
TB44	Static point	4625.093	4638.632	418.686	1258872.892	6037668.181	1621247.106	14°49'22.71428"	78°13'20.58893"	291.785
TB45	Static point	4674.735	4621.119	413.844	1258887.092	6037647.531	1621293.611	14°49'24.32108"	78°13'19.98305"	286.942
TB46	Static point	4830.287	5051.775	498.326	1258475.968	6037774.644	1621470.652	14°49'29.55184"	78°13'34.31081"	371.424
TB65	Static point	6086.079	4058.108	482.409	1259395.204	6037242.365	1622667.731	14°50'09.97686"	78°13'00.58082"	355.507
TB66	Static point	6086.264	4078.396	483.028	1259375.461	6037246.98	1622668.312	14°50'09.99108"	78°13'01.25877"	356.126
TBM1	Static point	5000	5000	500	1258520.184	6037722.921	1621634.405	14°49'35.04843"	78°13'32.51019"	373.098
TP01	Static point	4267.359	4755.585	437.762	1258776.495	6037800.147	1620907.808	14°49'11.13132"	78°13'24.64571"	310.86
TP02	Static point	4836.165	5432.77	499.656	1258103.035	6037850.91	1621481.23	14°49'29.89639"	78°13'47.04109"	372.754

Result file(csv format)

平差后点坐标(TBM1,5000,5000,500) - Notepad

File Edit Format View Help

Point name,Quality,North,East,Elevation,X(ECEF),Y(ECEF),Z(ECEF),B,L,H

aaaa
bbbb

TB43,Static point,4779.056,5057.048,495.899,1258472.379,6037786.359,1621420.603,14°49'27.88839"N,78°13'34.50826"E,368.997

TB44,Static point,4625.093,4638.632,418.686,1258872.892,6037668.181,1621247.106,14°49'22.71428"N,78°13'20.58893"E,291.785

TB45,Static point,4674.735,4621.119,413.844,1258887.092,6037647.531,1621293.611,14°49'24.32108"N,78°13'19.98305"E,286.942

TB46,Static point,4830.287,5051.775,498.326,1258475.968,6037774.644,1621470.652,14°49'29.55184"N,78°13'34.31081"E,371.424

TB65,Static point,6086.079,4058.108,482.409,1259395.204,6037242.365,1622667.731,14°50'09.97686"N,78°13'00.58082"E,355.507

TB66,Static point,6086.264,4078.396,483.028,1259375.461,6037246.980,1622668.312,14°50'09.99108"N,78°13'01.25877"E,356.126

TBM1,Static point,5000.000,5000.000,500.000,1258520.184,6037722.921,1621634.405,14°49'35.04843"N,78°13'32.51019"E,373.098

TP01,Static point,4267.359,4755.585,437.762,1258776.495,6037800.147,1620907.808,14°49'11.13132"N,78°13'24.64571"E,310.860

TP02,Static point,4836.165,5432.770,499.656,1258103.035,6037850.910,1621481.230,14°49'29.89639"N,78°13'47.04109"E,372.754

TP03,Static point,4688.591,5316.936,495.678,1258221.552,6037861.201,1621336.267,14°49'25.05202"N,78°13'43.23102"E,368.776

TP06,Static point,4451.080,5037.400,482.183,1258502.038,6037852.344,1621100.027,14°49'17.21782"N,78°13'33.98749"E,355.281

TP07,Static point,4875.984,5424.943,501.760,1258109.518,6037841.262,1621520.141,14°49'31.18778"N,78°13'46.76302"E,374.858

aaaa,Static point,4161.818,4802.500,443.893,1258736.005,6037842.046,1620807.983,14°49'07.71906"N,78°13'26.25729"E,316.991

bbbb,Static point,4452.777,4910.430,481.374,1258626.101,6037825.652,1621099.939,14°49'17.22181"N,78°13'29.74358"E,354.472

Result file(txt format)

THANK YOU !