

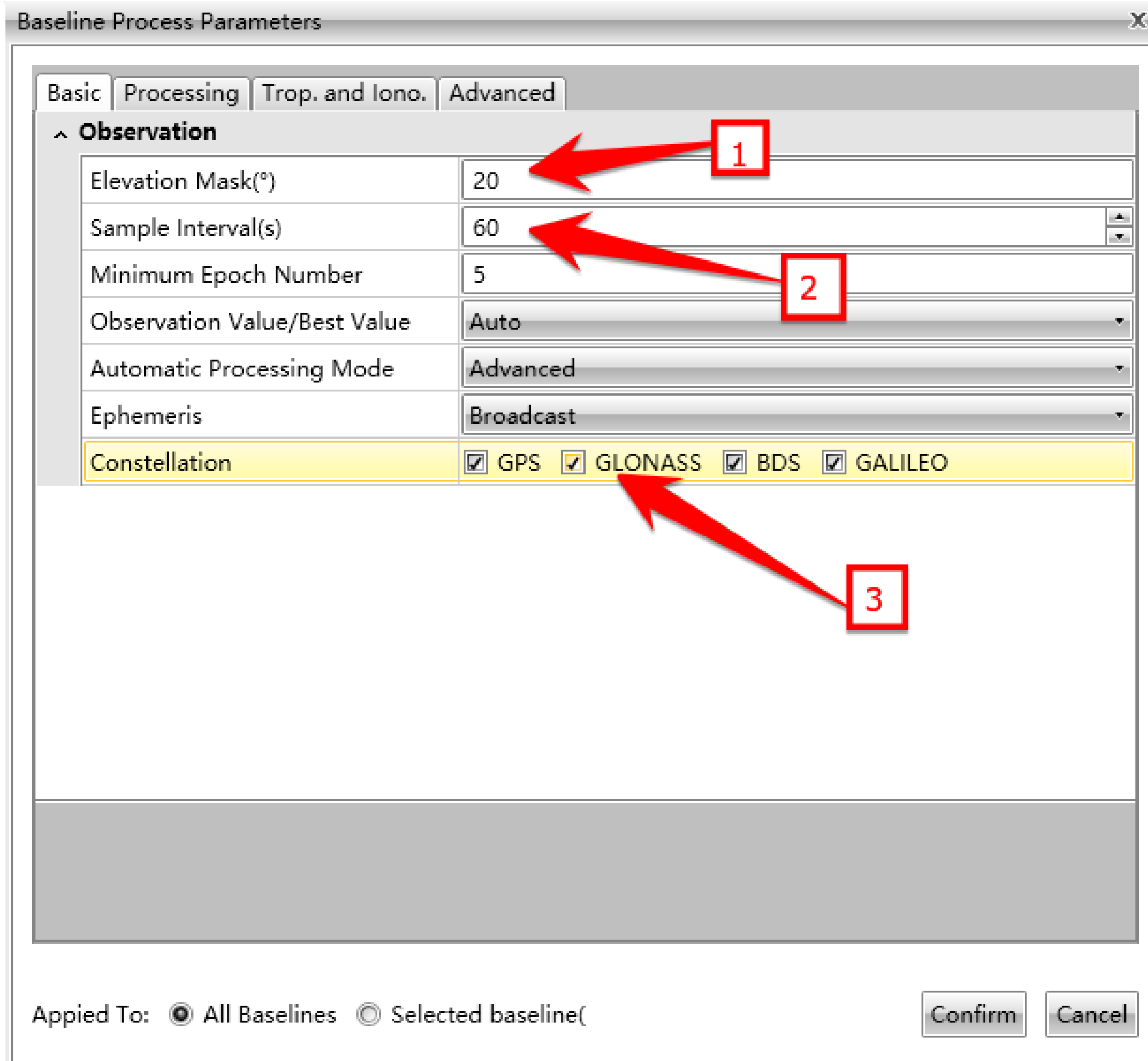
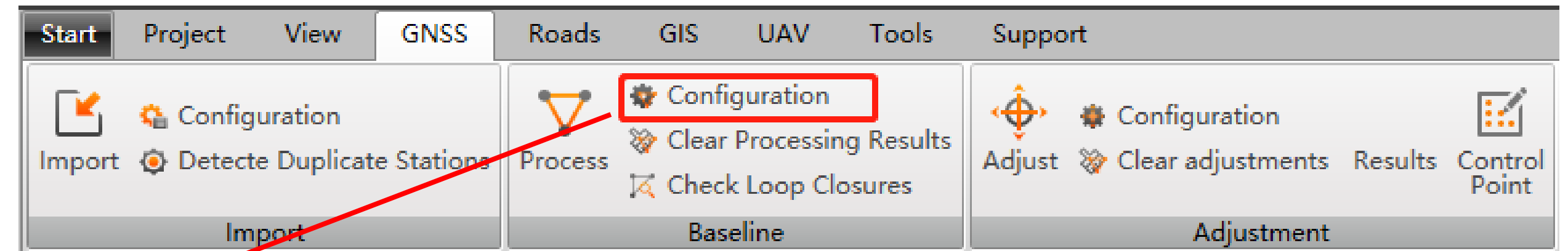
CHC Navigation Ltd

CGO2 Work Flow – GNSS Baseline Processing

Step1: Import the raw data

Please refer to [CGO2 Work flow – Import data](#)

Step2: Modify parameters



1. When the measurement time is long enough, wider angle can get higher precision.
2. Lower frequency sample interval can ameliorate the processing speed.
3. Some times forbidden particular constellation can get higher precision.

Step3: Processing

The screenshot shows the CHCNAV software interface. On the left, there is a sidebar with icons for 'Control Point', 'Baselines', 'Repeat Baselines', and 'Loop Closure'. The 'Baselines' icon is highlighted with a red box. The main window displays a table of baselines with columns: Baseline ID, Baseline Type, Begin Point, End Point, Solution, Syn.Time, Ratio, RMS(m), and Qualified. A context menu is open over the selected row (B05), with the 'Process Selected BaseLines' option highlighted by a red box.

Baseline ID	Baseline Type	Begin Point	End Point	Solution	Syn.Time	Ratio	RMS(m)	Qualified
B01(hefe2440.f	Static	HEFE	ASHD	None	23:59:30	0.0	0.00000	CHECKING
B02(ksho2440.f	Static	KSHO	ASHD	None	23:59:30	0.0	0.00000	CHECKING
B03(ksho2440.f	Static	KSHO	HEFE	None	23:59:30	0.0	0.00000	CHECKING
B04(neta2440.f	Static	NETA	ASHD	None	23:59:30	0.0	0.00000	CHECKING
B05(neta2440.f	Static				23:59:30	0.0	0.00000	CHECKING
B06(neta2440.f	Static				23:59:30	0.0	0.00000	CHECKING
B07(rish2440.h	Static				23:59:30	0.0	0.00000	CHECKING
B08(rish2440.h	Static				23:59:30	0.0	0.00000	CHECKING

Message: 0 Errors, 0 Warnings, 5 Notes

- Resolving Baseline: B01(hefe2440.hcs->ashd
- Resolving Baseline: B01(hefe2440.hcs->ashd
- Refresh network data
- Import GNSS Files...

Go to baseline, right click selected baseline, process all baseline or selected baseline

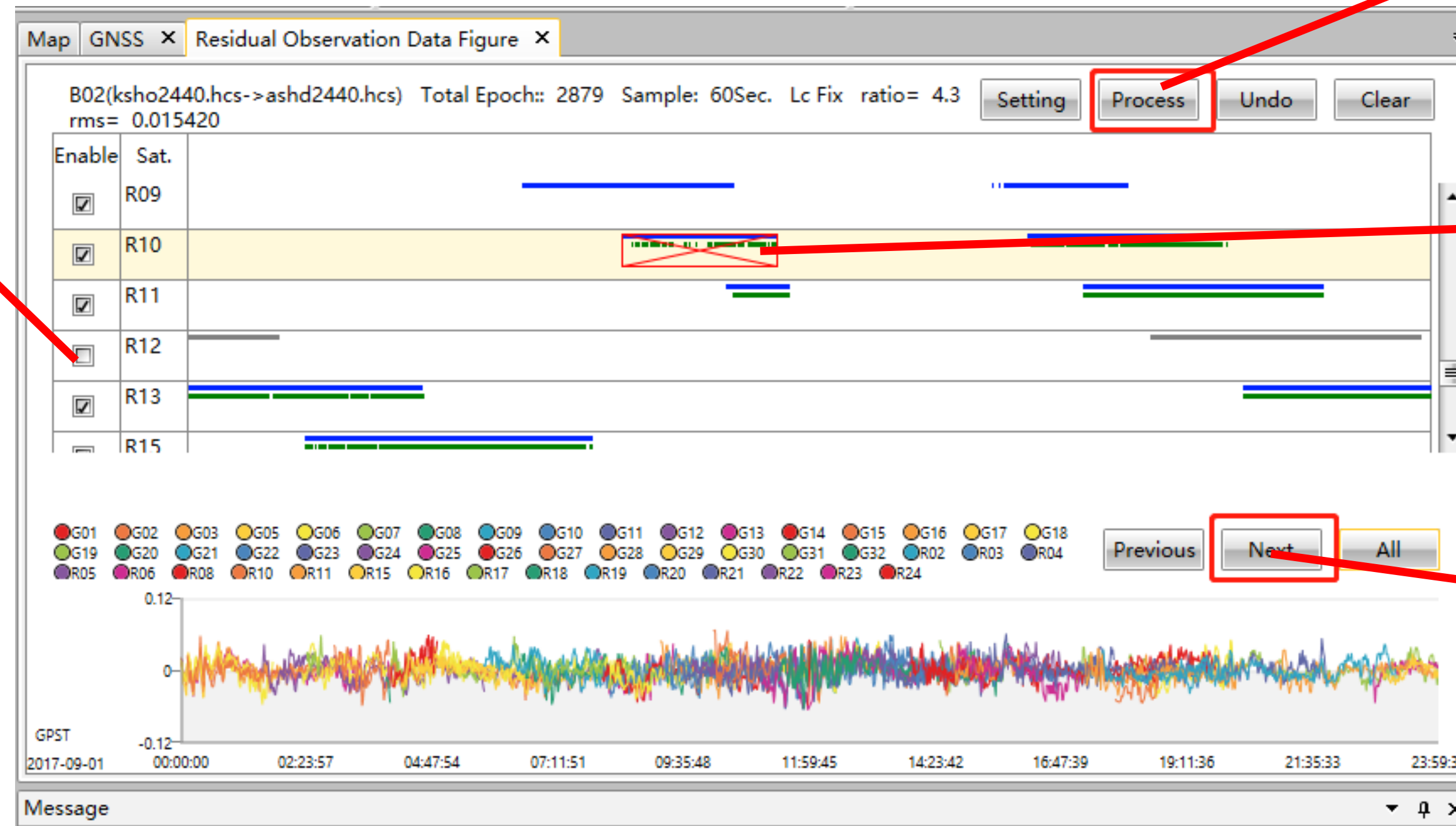
Step4: Hone baseline residual

4. Reprocessing

3. Delete poor observation period

1. Check satellites residual graph in turn

2. Forbidden low quality satellites



Step 5: Check the result

The screenshot displays the CHCNAV software interface. The main window is titled "Residual Observation Data Figure" and contains a table with the following data:

Index	Contrc	Station	North(m)	East(m)	Height(m)	Longitude(Local)	Latitude(Local)	Ellipsoid H
1		ASHD	9041038.96468	-7752604.45195	48.5471	034°37'32.8216572"E	031°45'59.5020581"N	48.5471
2		HEFE	8968399.66815	-7585129.31484	211.8354	035°04'19.9693411"E	032°17'10.2774950"N	211.8354
3		KSHO	8957816.40743	-7612151.46394	373.3065	035°05'47.8993943"E	032°10'15.7962958"N	373.3065
4		NETA	9013308.64711	-7602008.68856	57.8713	034°51'41.8993902"E	032°16'59.8377289"N	57.8713
5		RISH	9018837.95200	-7683910.85021	73.4227	034°46'26.7766986"E	031°59'16.1991212"N	73.4227
6		SHOA	8981318.41460	-7666976.96880	119.2936	034°56'58.6134222"E	031°59'59.3511962"N	119.2936
7		TELV	9021188.21005	-7664411.00443	62.9946	034°46'44.7824898"E	032°03'45.6348289"N	62.9946
8		ZOFI	8997886.65364	-7619922.70514	104.7143	034°54'54.5612490"E	032°11'46.2497385"N	104.7143

The "Station" button in the left toolbar is highlighted with a red box. The "Property" panel on the right shows the following details for the selected station (RISH):

- General:** Point Name: RISH, Code: RISH
- Coordinate System:** Coordinate Sou: Baseline solutionB2, Coordinate Typ: WGS-84
- Geodetic Coord.:** Lat.: 031°59'16.1991211, Lon.: 034°46'26.7766986, Ellipsoid(m): 73.4227
- Space Coord.:** X(m): 4447783.97889, Y(m): 3088310.07749, Z(m): 3359326.11020

The "Message" panel at the bottom shows 0 Errors, 0 Warnings, and 58 Notes. A message is displayed: "B28(zofi2440.hcs->telv2440.hcs) Resolving Finished Solution Type: Lc Fix Quality index: RMS: 0.01594 (<=0.04) Ratio:1.9 (>=1.8) Conformity". The "Property" panel also has an "Edit manually" button and a "Confirm" button, with a red box around the "Property" label.

Step 5: Check the result

The screenshot shows the 'Residual Observation Data Figure' window in CHCNAV. A table lists 15 baselines. Baseline B06 is highlighted in yellow. A context menu is open over B06, with the 'Report' option selected and highlighted by a red box. A red arrow points from this 'Report' option to the 'Baseline List' section of the report on the right.

Index	Baseline ID	Baseline Type	Begin Point	End Point	Solution	Syn.Time	Ratio	RMS(m)	Qualified
1	B01(hefe2440.hcs)	Static	HEFE	ASHD	Lc Fix	23:59:30	3.2	0.01373	Conformit
2	B02(ksho2440.hcs)	Static	KSHO	ASHD	Lc Fix	23:59:30	4.3	0.01542	Conformit
3	B03(ksho2440.hcs)	Static	KSHO	HEFE	Lc Fix	23:59:30	3.3	0.01376	Conformit
4	B04(neta2440.hcs)	Static	NETA	ASHD	Lc Fix	23:59:30	4.7	0.01397	Conformit
5	B05(neta2440.hcs)	Static	NETA	HEFE	Lc Fix	23:59:30	6.2	0.00991	Conformit
6	B06(neta2440.hcs)	Static	NETA	KSHO	Lc Fix	23:59:30	3.4	0.01479	Conformit
7	B07(rish2440.hcs)	Static	RISH	ASHD	Lc Fix	23:59:30	3.7	0.01157	Conformit
8	B08(rish2440.hcs)	Static	RISH	HEFE	Lc Fix	23:59:30	11.3	0.01057	Conformit
9	B09(rish2440.hcs)	Static	RISH	NETA	Lc Fix	23:59:30	2.9	0.01504	Conformit
10	B10(rish2440.hcs)	Static	RISH	ASHD	Lc Fix	23:59:30	3.2	0.01200	Conformit
11	B11(shoa2440.hcs)	Static	SHOA	ASHD	Lc Fix	23:59:30	5.1	0.01126	Conformit
12	B12(shoa2440.hcs)	Static	SHOA	HEFE	Lc Fix	23:59:30	14.5	0.01012	Conformit
13	B13(shoa2440.hcs)	Static	SHOA	NETA	Lc Fix	23:59:30	2.5	0.01294	Conformit
14	B14(shoa2440.hcs)	Static	SHOA	ASHD	Lc Fix	23:59:30	3.2	0.00961	Conformit
15	B15(shoa2440.hcs)	Static	SHOA	HEFE	Lc Fix	23:59:30	24.8	0.00858	Conformit

Baseline Summary Report

Basic Information

Name	Value
Username	DESKTOP-7MVD5J7
Project Datum	Default
Project Name	For_Demo
Distance Units	Meter
Height Units	Meter

Baseline List

Baseline Information

Name	Value
Number of baselines	1
The longest baseline(m)	B06 (neta2440.hcs->ksho2440.hcs): 25410.6622
The shortest baseline(m)	B06 (neta2440.hcs->ksho2440.hcs): 25410.6622
Worst baseline(m)	B06 (neta2440.hcs->ksho2440.hcs)
Relative error of worst baseline	1 / 18475278

Please note:

When the solution of the baseline processing doesn't fix, please follow the residual graph to adjust the satellites/ the period of particular satellites to ameliorate the processing outcome.

In the United States, contact

iGage Mapping Corporation
+1-801-412-0011

www.igage.com/cgo2

For demos, pricing and additional information.

30-day fully functional demos are available by software code.

THANK YOU

CHCNAV

Make your work more efficient