

QUICK GUIDE

GPS DATA PROCESSOR

ABOUT THE SOFTWARE



It is a software used for recording raw data in the field, and downloading data after the field work.

It is also a software used for processing and adjusting raw data recorded in the receiver.

Main features:

- English Windows interface. More language versions will be added.

- Edit function: switch the format of the file data, output the coordinates report, and define the - coordinates system.

- Compatible with AutoCAD, calculation including sides and area.

- Easy-to-use, only requires 3 simple steps: add the data from R70; input the local parameter and known points restriction for post processing; and edit and print the report.

- Output the coordinate file directly.
- You can change the format of coordinate data and import the data into GIS as geographic data.
- Compiled by Visual C++.

BRIEF STEPS

NEW JOB

Fill in each item in the dialog box, especially must select the coordinate system and projection zone.

ADD OBSERVATION DATA

Import the H66 data *.STH to the software.

POST DIFFERENTIAL PROCESSING

Input the known coordinates of R70, get the report after real-time processing.

REPORT OUTPUT

The purpose of this step is to import the report into other software, such as AutoCAD, MAPINFO, etc., in order to proceed more convenient editing and mapping.

MAIN MENU & FUNCTION

1. FUNCTIONS OF THE SOFTWARE

The software using differential GPS collecting data, adopts the pseudo-range differential principle to calculate the position coordinate of the discrete points and close the coverage in order to calculate the area of the coverage.

2. MAIN MENU & FUNCTIONS

a. Post differential processing

Track	Process	Adjust			
Solve Settings Report Settings					
Tracking					
Cal affine					

Fig 2.1 Post Differential Menu

b. Processing Setting: Set the relevant parameter for data processing. Click button Solve settings, a dialog box comes up as Fig 2-2.

Process Setting					×
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Set Parameter					_
X(m)	0.000	Lo	ad		
Y(m)	0.000	All Trac		ОК	
Scale 1	.00000000	🗆 New Ad	d Track		
Rotate 0	.00000000			Cancel	

Fig 2-2 Differential Processing Setting

- c. Record: Usually adopts the default settings.
- d. Output setting: Set the display of output figures and files. Click Report settings from menu and there is a dialog box coming up.

View in PIC Format	Output Result
🗌 View Point Numbers	View Data with Point
🗹 View Point Names	🗖 View Coordinates
🗹 View Point Names	🗖 Stop Data
🗖 Stop Data	🗵 Output Data with Point
- Data Process	· · · · · · · · · · · · · · · · · · ·
	Ok Cancel

Fig 2-4 Differential Output Setting

- e. Tracking: Process the collected data using differential mode
- f. Calculate the four parameters: calculate the four parameters by two points, then import the parameter setting to use in the processing.

3. SOFTWARE USE MODEL

This chapter employs example data to introduce the specific operation.

Before using this software, you need to get a register No. The way of registration is the same as static processing software.

R70 file ABCD0451.STH of field surveying data is demo data. It is important to note is that this file must be the synchronous with observation ones.

<u>New Job</u> Click New from Project. Fill in the following items.

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Supervisor	sun	Control Net Grade <mark>E 💌</mark> Setup
Coordinate	WGS-1984 💌	Setup
Center Meridian	0	Forbid Method Auto
ОК		Cancel

Fig 3-1 New Job

If there is a job file name existed, close this existed file, then create a new job. After filling all the items, click OK to enter the program.

Add Observation Files

The input method of differential data is the same as static. Click Add GNSS Observation Data from Input, or click the shortcut, and select the observation data from the dialog box. Click OK. The demo data of the software defaults the path *C:\Program Files\RUIDE GPS Data Processor\Example\TRACK*. For example, we select the collected file AAAA0451.STH and ABCD0451.STH. Data information is displayed in the form of "Observation Data" when the file is imported.

File Name	Path	date	Start Ti	End time	Site ID	Ant	Mea	Ant Mode	Ver
ABCD0461.STH	C:\Progra	2000:02:15	08:31	12:11	ABCD	1.750	1.750	Ant to Bottom	11.00
TTTT0461.STH	C:\Progra	2000:02:15	10:01	10:54	TTTT	1.000	1.000	Ant to Bottom	15.00

Fig 3-2 Differential data

Input the Known Coordinate Of R70 Receiver Click Station Coordinates from Input.

Inpu	Input Known Station Coordinates 🛛 🔀								
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	👗 🛛 ABCD	хуН 🔽	3456567.461	468657.821	46				
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The default coordinate value of the software is the single point geodetic coordinate designated in Project Setting, but what we usually need is the right-angle coordinate value. So we need to input the known right-angle coordinate value of R70 receiver in the coming out dialog box.

Note: Not only the plane right-angle coordinate is required to input, but also the Height value while setting the R70 coordinates.

Differential Processing and Output Network Report

Click Tracking from Track, the software will process the data automatically, showing the report as the following figure:

🔓 Gpsadj - project				5
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🥬 Loop Clesure	Coordinate :WGS-1984			
Lepest Vectors	Center Neridian: 11.0000000	C 405007 201 W- 40.000		
	Z. 3400001.401	40.000		
		No. 4		
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	A. 3100510.051		R. 55. PH	
		No. 17		
	Name; j3	Observation Time:2000-02-15	1C:02:25	Fseduorange Smooth
	Satellite Nums:5	ERS : 0.180	High of Antonna 1.000	
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		No. 25		
	Мате: ј4	Observation Time:2000-32-15	10:03:05	Eseduaranse Smooth
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11 11	A. 3400020.030	406304.456	n. 03.517	

Fig 3-4 Differential Processing Report

View the "Map of Net" on the left bar to show the network as the following figure.



The coordinate value and network graph of the surveying point are displayed here, which can be printed on the current form. If you want to make further use of the report, export the report, in order to import the surveying data into other software.

Select Track Report from Report.



Select an output path for the report file. You can select different output result from this menu.