



V1.2

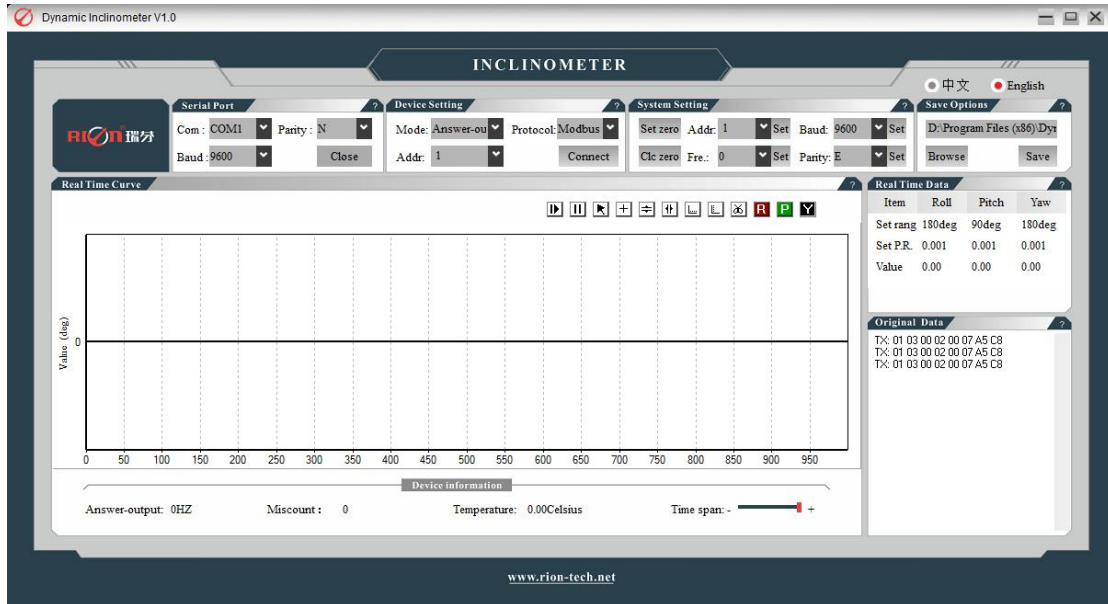
DYNAMIC INCLINOMETER MODBUS SOFTWARE

PC SOFTWARE USER MANUAL

► RION INCLINOMETER MODBUS SOFTWARE

1.SOFTWARE INTERFACE INTRODUCTION

The host computer interface (Figure 1-1) is as follows, mainly composed of serial port setting area, device setting area, system setting area, save options, real-time curve area, real-time data area, and original data area. When the mouse is moved to the column "?", the prompt message explains the content of each column. Please set the correct range and resolution before use. The following is a step-by-step operation introduction:



(Fig 1-1)

2.OPERATION STEPS

The software setting interface, as shown in (Figure 1-2): The following describes the operation steps:



(Fig1-2)

1st step: serial port setting (Fig1-3)

- ① After opening the software, select the corresponding port;
- ② Select the current calibration method of the device (N, O, E, the factory default is N)
- ③ Select the current baud rate of the device (2400, 4800, 9600, 19200, The factory default for 38400 and 115200 is 9600)
- ④ Click the open.



(Fig1-3)

2nd step : device setting (Fig1-4)

- ① Select the protocol used by the device:
- ② Fill the device address:
- ③ Choose output mode.
- ④ Click connection key, if the operation is correct, you can see the data refresh.

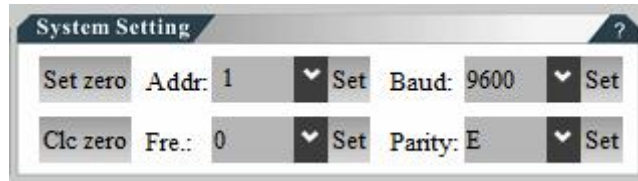


(Fig1-4)

3rd step: system setting

The function of this area is that the customer sets the equipment according to their needs. If the setting is successful, there will be a prompt, and there will be no feedback on failure. The following figure (Figure 1-6) shows the MODBUS setting content.

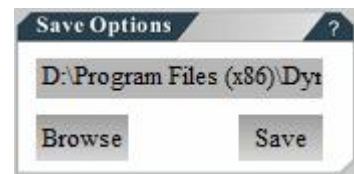
(Fig1-6)



- ① Set the zero point;
- ② Clear the zero point;
- ③ Set the baud rate;
- ④ Set up address;
- ⑤ Set the data output frequency, when the output mode is automatic mode, command to set the frequency; When the output mode is the question and answer mode, it is the inquiry frequency;
- ⑥ Set up equipment verification method;
- ⑦ When using the RION_68 protocol, you need to click the save button to save the settings.

4th step: save file (Fig1-7)

The edit box shows the file path. You can click the browse button to select the storage path. After selection, click the start button to save the data. Open the catalog to find the CSV file of product name + DATA + date. The content of the file is XY axis data, temperature and time.

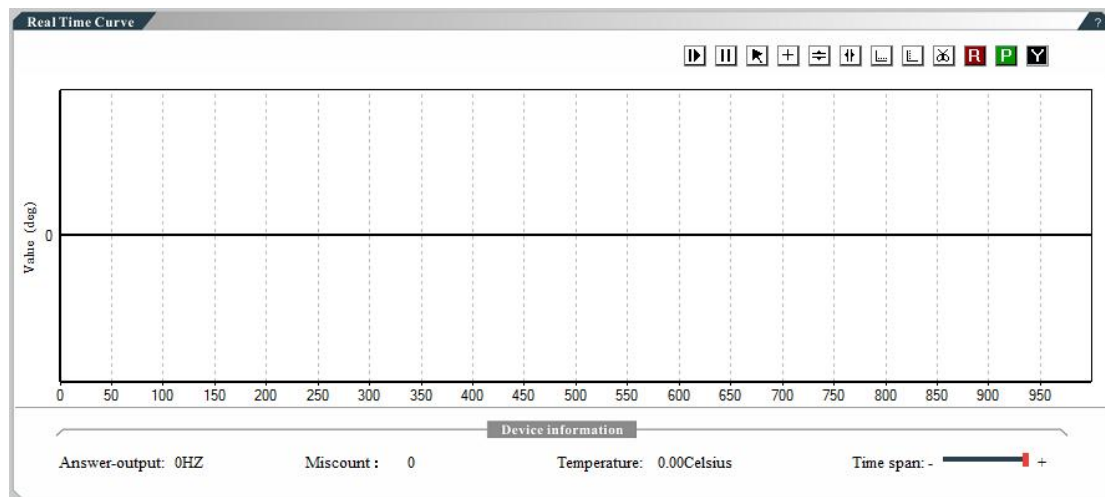


(Fig1-7)

3.Display area introduction

(1) Real-time curve

As shown in (Figure 1-8), the real-time data waveform is displayed, the horizontal axis is time, and the vertical axis is data value. Left mouse click and right pull down to zoom in the drawing area, right click to move the drawing area.



(Fig1-8)

- a. The toolbar in the upper right corner is start, pause, display mouse, display cross cursor, enable/disable horizontal caliper, enable/disable vertical caliper, enable/disable horizontal scale, enable/disable vertical scale, screenshot, and draw /Close Roll data, draw/close Pitch axis data, draw/close Yaw axis data. The picture is saved in the software Picture file.
- b. The lower left corner is the data output frequency and output error count;
 - inclinometer ○compass ○digital inclinometer ○accelerometer ○gyro ○north finder ○INS&IMU

- c. If there is no temperature data, ignore it.
- d. The bottom right corner is the waveform length of the data plot.

(2) Real-time data (Figure 1-9)

Double-click the column to set the device range and resolution, and display real-time data.

Real Time Data ?			
Item	Roll	Pitch	Yaw
Set rang	180deg	90deg	180deg
Set P.R.	0.001	0.001	0.001
Value	0.00	0.00	0.00

(Fig1-9)

(3) Raw data (Figure 1-10)

Serial data printing function

Original Data ?	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	
TX: 01 03 00 02 00 07 A5 C8	

(Fig1-10)



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