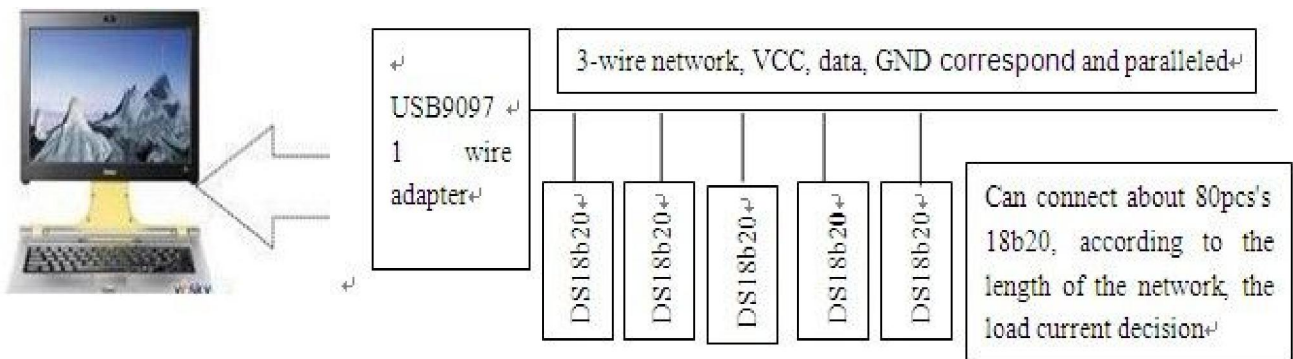# Net thermometer system—— TEMPer18b20

1.Description :

1 wire net thermometer system is adopt maxim company 's 1 wire' technology which High-end network measure temperature system . it is called TEMPer1W . The system is a cheap miniLAN architecture , it can be easily detected the temperature of hundred points by the computer . in addition , DS18b20 digital thermometer is 1 wire devices of DALLAS maxim company produce, which have simple circuit, the characteristics of small size .So use it to form a temperature measuring system, that will be a simple communication line, you can hang many of these digital thermometer, very convenient.
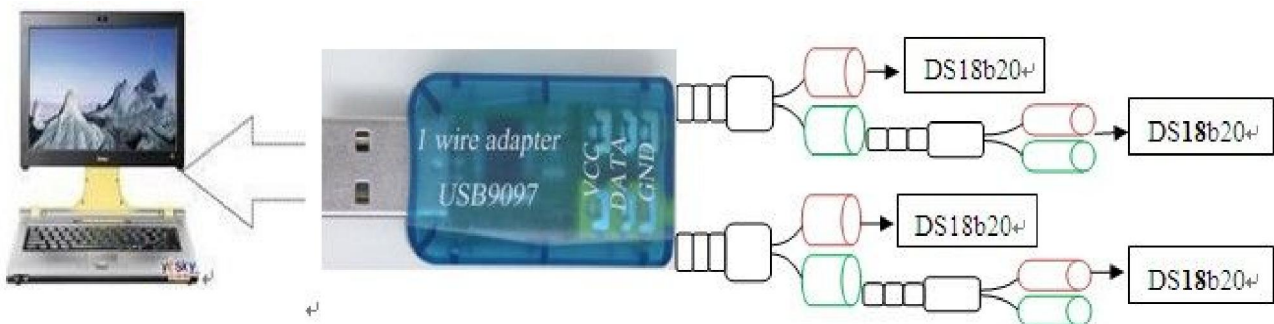
2.Application Diagram:

（1）

if you not use 3.5mm audio splitter , one USB9097 only can connect two devices ; if you need to connect many devices to computer ,you can follow the below picture .

（2）

when you plug the device into your computer one by one , the system will automatically find the device unique ID, and the software display the ID.

(3) DS18b20 Probe Type :

Probe Type 1_ Dx

Probe Type 2_H200

3. Packaging content:

Part / Quantity / Type	1 wire Adapter	5m Audio Extending Cables	3.5mm Audio splitter	Dx sensor	CD	USB cable (0.8m)
1 wire_Dx_2	1pcs	1pcs	1pcs	2pcs	1pcs	1pcs
1 wire_Dx_4	1	2	2	4	1	1
1 wire_Dx_8	1	6	6	8	1	1
1 wire_Dx_16	1	10	14	16	1	1
1 wire_Dx_32	1	10	30	32	1	1
1 wire_Dx_64	1	10	62	64	1	1
Note	Products according to customer requirements to extend the measurement of distance; the number of measurement points can be configured according to customer requirements.					

Part / Quantity / Type	1 wire Adapter	5m Audio Extending Cable	3.5mm Audio splitter	H200 sensor	CD	USB cable (0.8m)
1 wire_H200_2	1pcs	1pcs	1pcs	2pcs	1pcs	1pcs
1 wire_H200_4	1	2	2	4	1	1
1 wire_H200_8	1	6	6	8	1	1
1 wire_H200_16	1	10	14	16	1	1
1 wire_H200_32	1	10	30	32	1	1
1 wire_H200_64	1	10	62	64	1	1
Note	Products according to customer requirements to extend the measurement of distance; the number of measurement points can be configured according to customer requirements.					

4. DS18B20 Function & Feature:

（1） Unique 1-Wire® Interface Requires Only One Port Pin for Communication.

（2） DS18b20 each Device has a unique Serial Code .

（3） Does not require any external component while they are measure the temperature .

（4） Range of measuring : -55°C～ +125°C ;(-67°F to +257°F)

（5） Resolution rate :0.0625℃ ; Accuracy rate : ±0.5°C

（6） Inner of its have Temperature warning settings . such as :upper and lower limit of temperature warning setting .
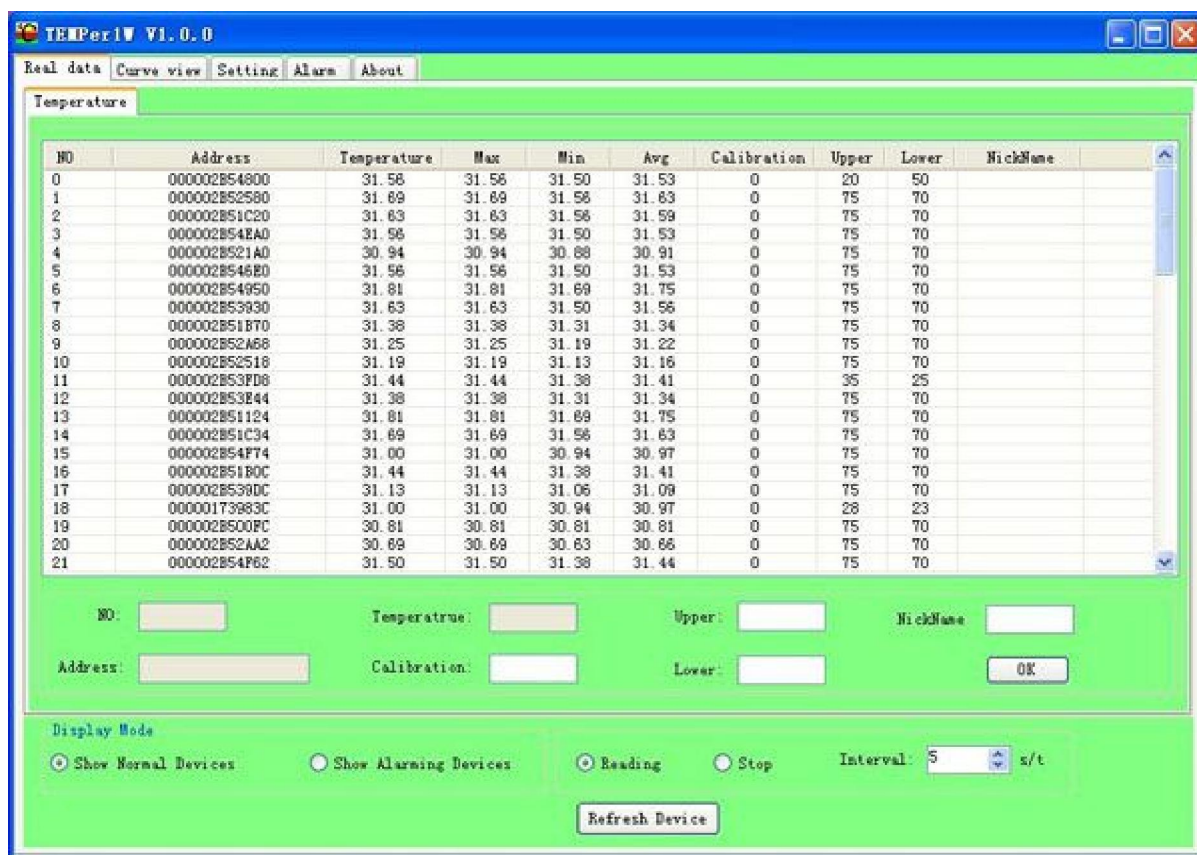
5.Installing instruction:

you need to install below drivers while you install the software at first time.

    (1) USB Driver
    a) install correspond system's driver , 32-bit systems with x32, 64-bit systems with x64 .
    (2) 1 Wire Driver
    a) install correspond system's driver , 32-bit systems with x32, 64-bit systems with x64 .

    (3) Install the application: Double-click setup.exe of the root directory to install the software

6.Operating instruction:

a) plug TEMPer18B20 into the computer and running TEMPer1 w, then start to measure the temperature. See the picture below:
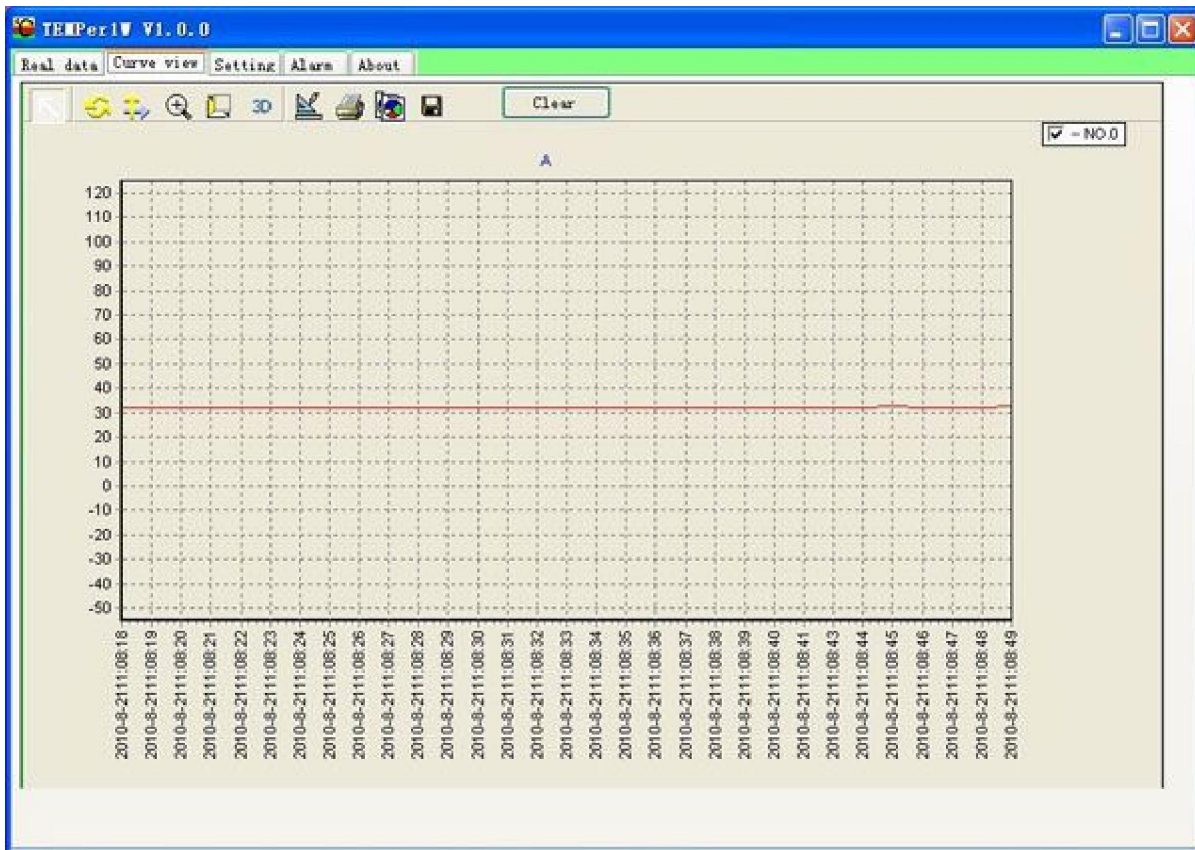

Picture1   Read the real time temperature

This option allows you to setting temperature of any channel , for example: modify the calibration value, upper ,lower and address of the alias, click "OK" button. If you connect a lot of measuring points, the software did not timely identify them, you can click "refresh device", measurement points have not been identified will be displayed in the software.

b) Loading the curve graph: You can load the curve graph on the "Curve" option part. Note, the device must be connecting to the computer to work, so the curve graph is the one about the real time temperature. And the function button can move, magnify, print, copy and save the curve graph. When you connect hundreds of test points, because the software interface is limited, can not be all of the test point curves show at the software .

At this time, you can click on: " ", select you want to show the test points
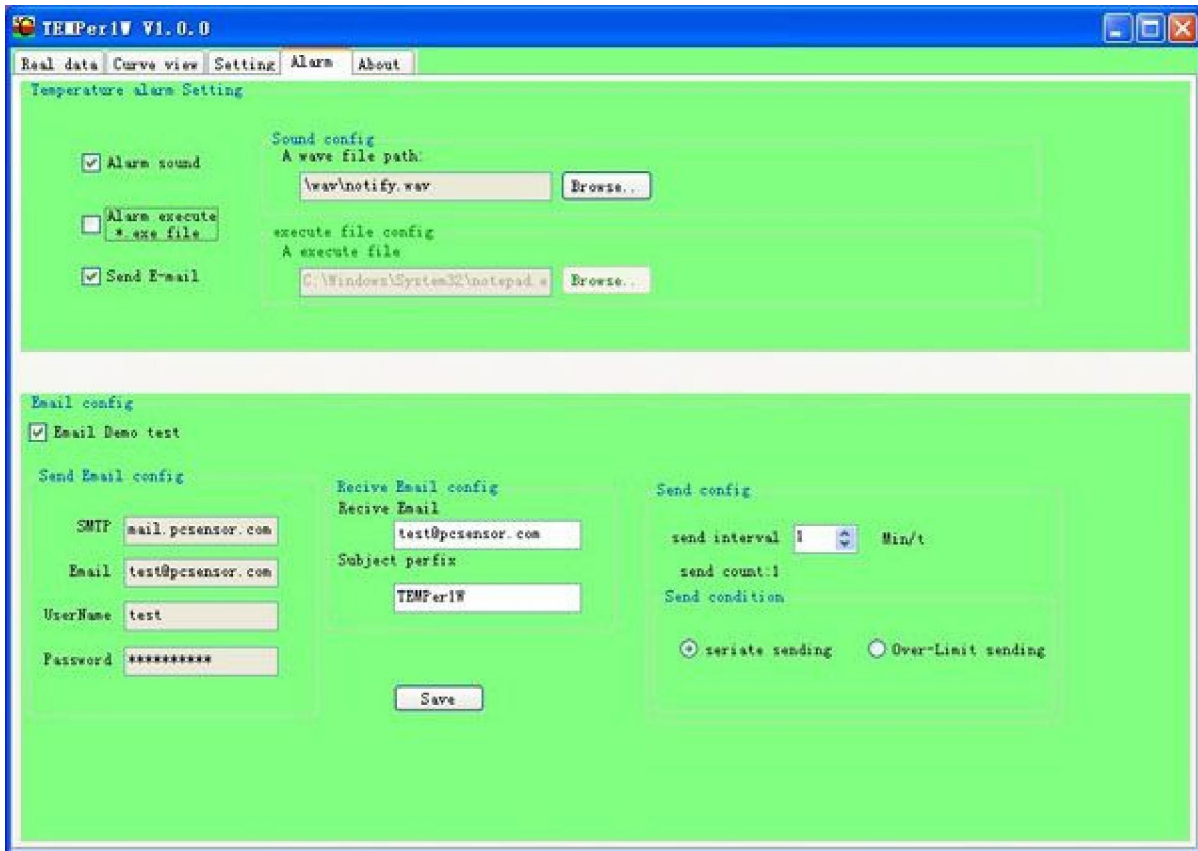
Picture 2   Curve graph

c)Setting : In the "setting" option you can transfer the deferent measuring units, the reading interval , the language and save file settings . and set a upper and lower limit,
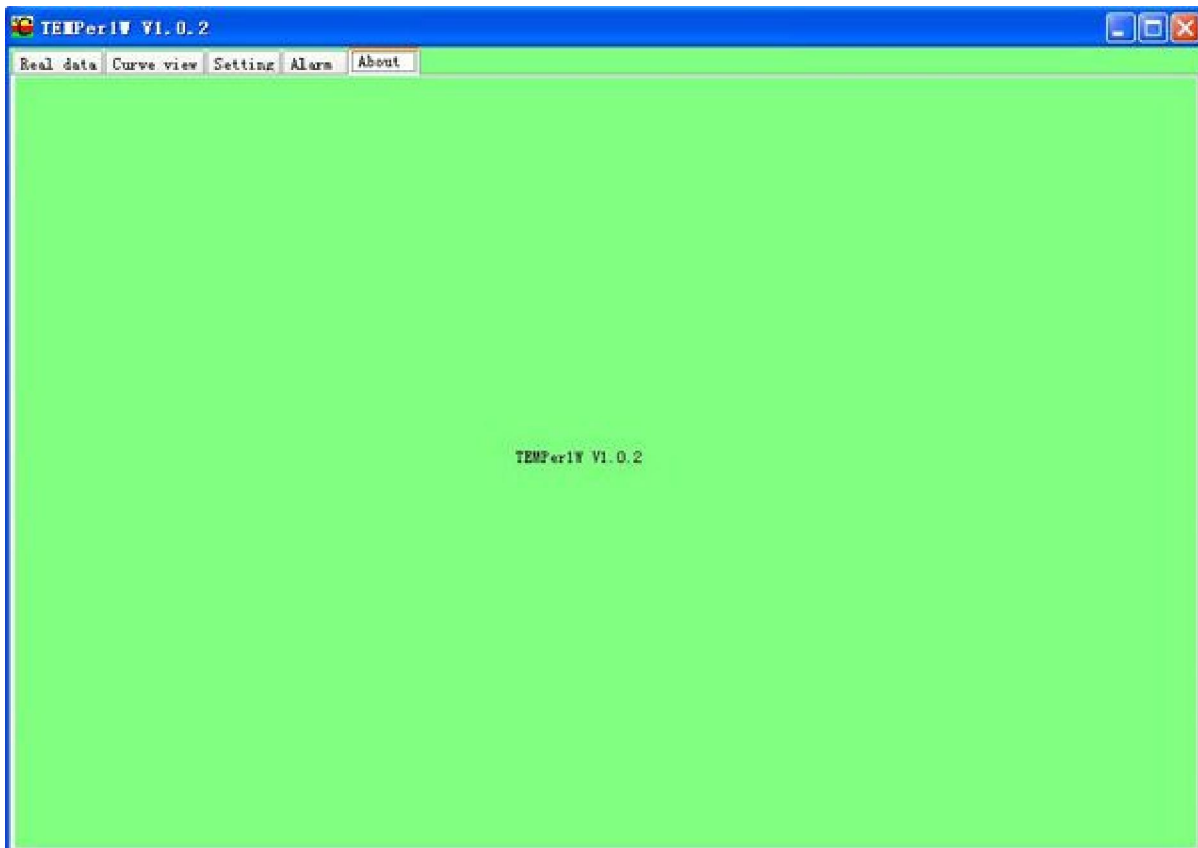
Picture 3   Setting

d)Alarm : in temperature alarm settings option , you can choose different alarm mode ;in "Email configuration" , you can send the temperature records to your mailbox. Before to do this, you must set the server of the mailbox, the mail address of sender and receiver, user's name and so on. And you also can set the sending conditions and interval in the option.

Picture 4   Alarm setting
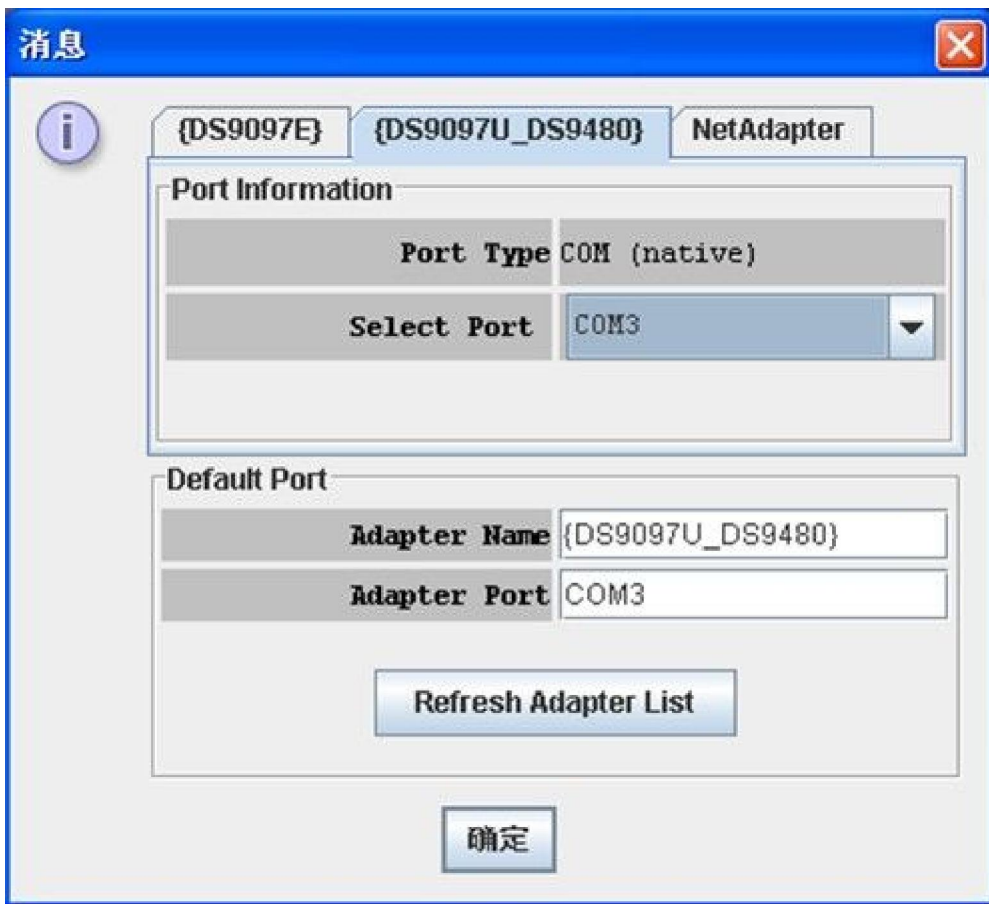
e) About Options: Display your current software version.

Picture 5 About

if you don't want to use our software ,you also can use maxim One Wire Viewer software .

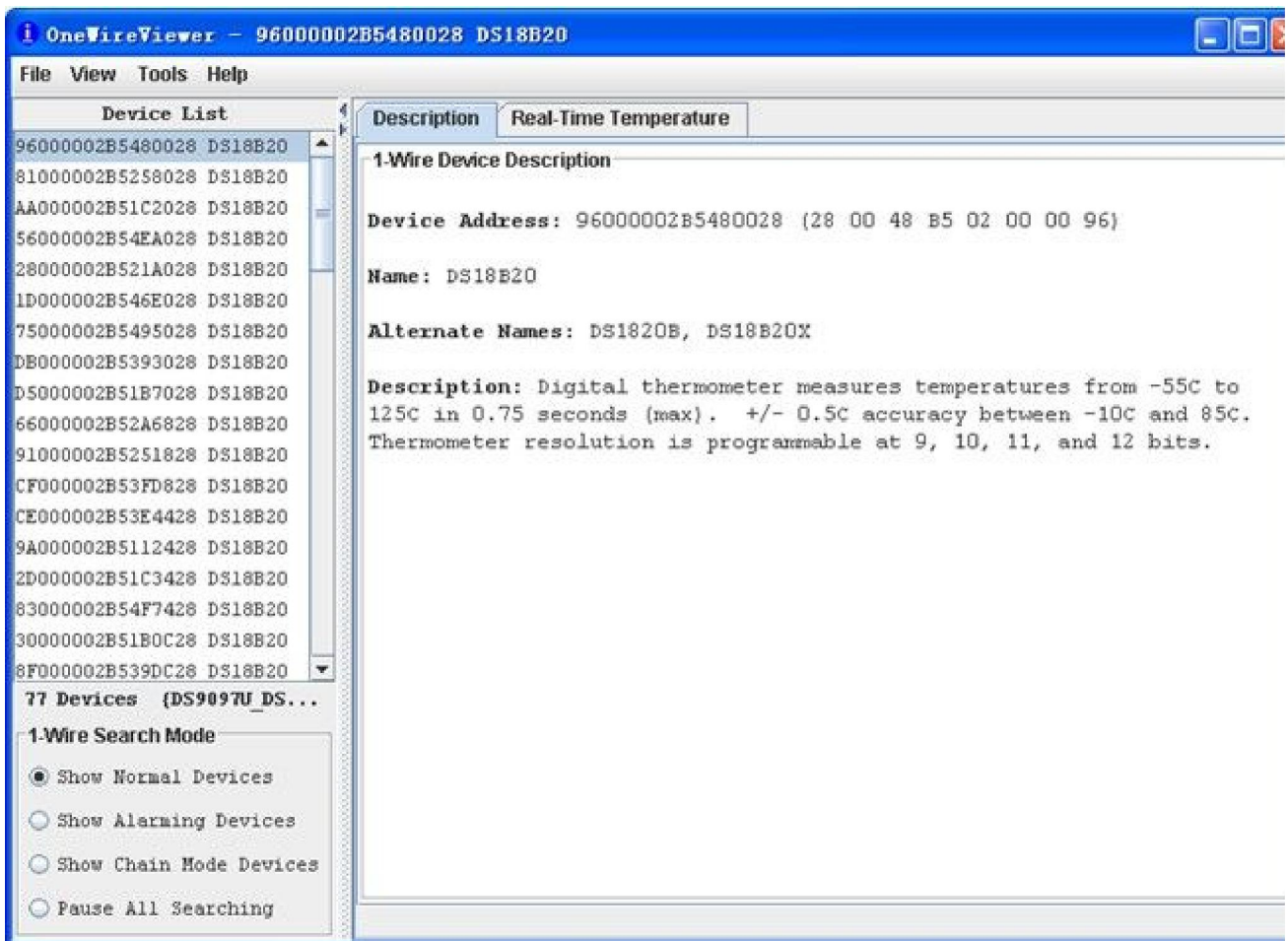# 7. Operating instruction (One Wire Viewer software)：

When first used, you need to manually set the port :

（1）Open the Device Manager, select the port, see "USB-SERIAL" port number ;
（2）open the software ,select (DS9097U_DS9480),In the Select Port drop-down list, select the corresponding port number
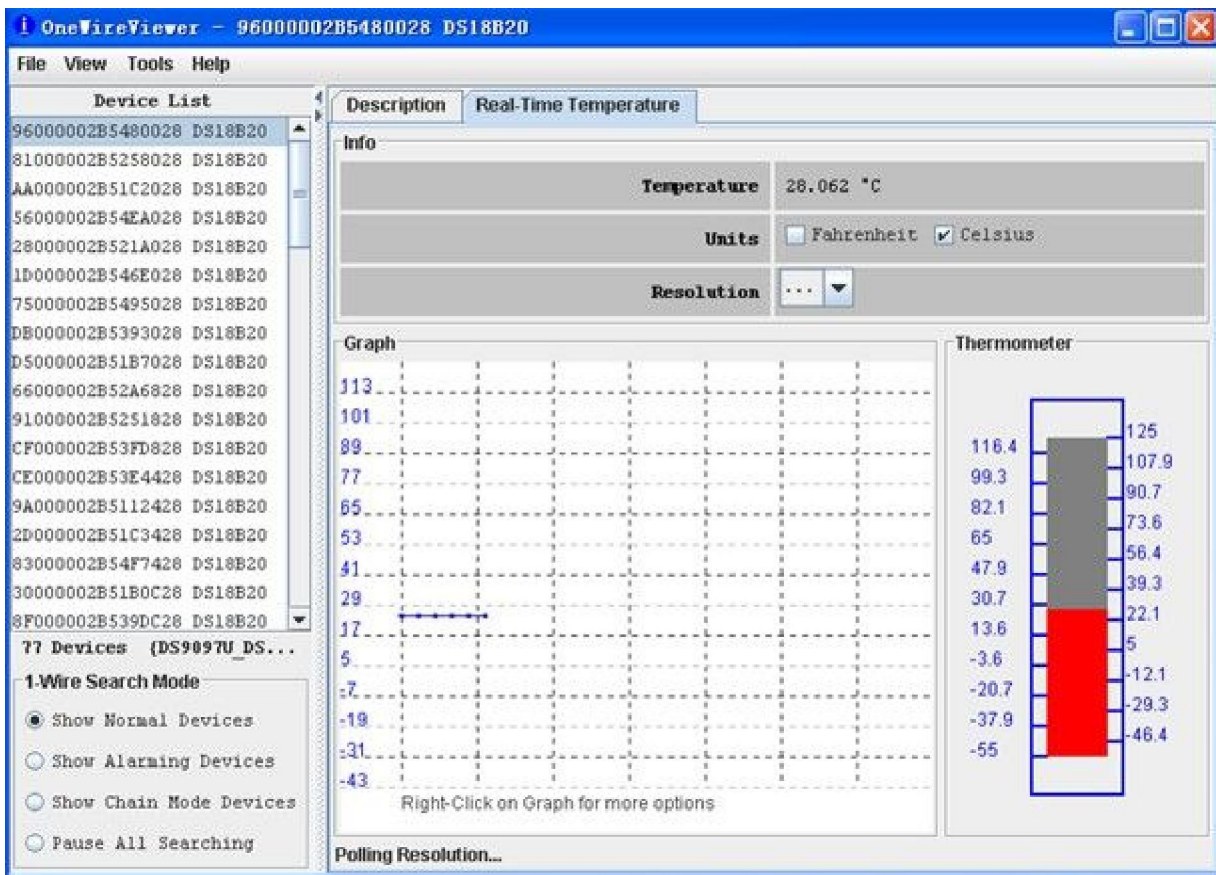
Picture 6

(3) Read the real time temperature :

Picture 7

(4)Loading the curve graph:

Picture 8

Ending