

## 1. The preparatory work before using

Firstly operate on computer which is not installed VC + + as follows:

1. Copy the files of this



compressing package after decompressing under the folder C: \ WINDOWS \ system32.

2. After decompressing pictures as below:

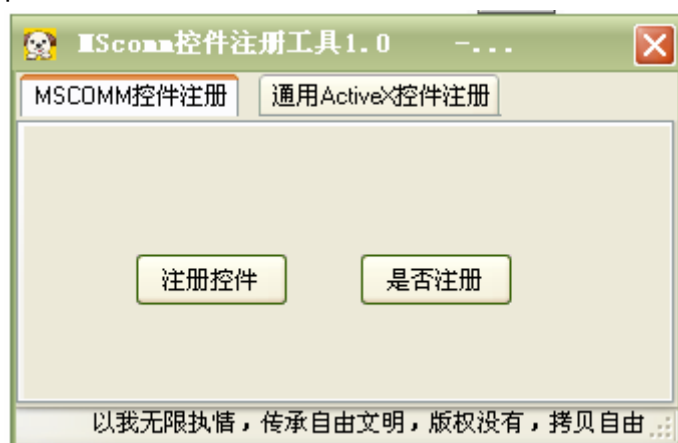


, double click



Project1.exe

then it will appears the



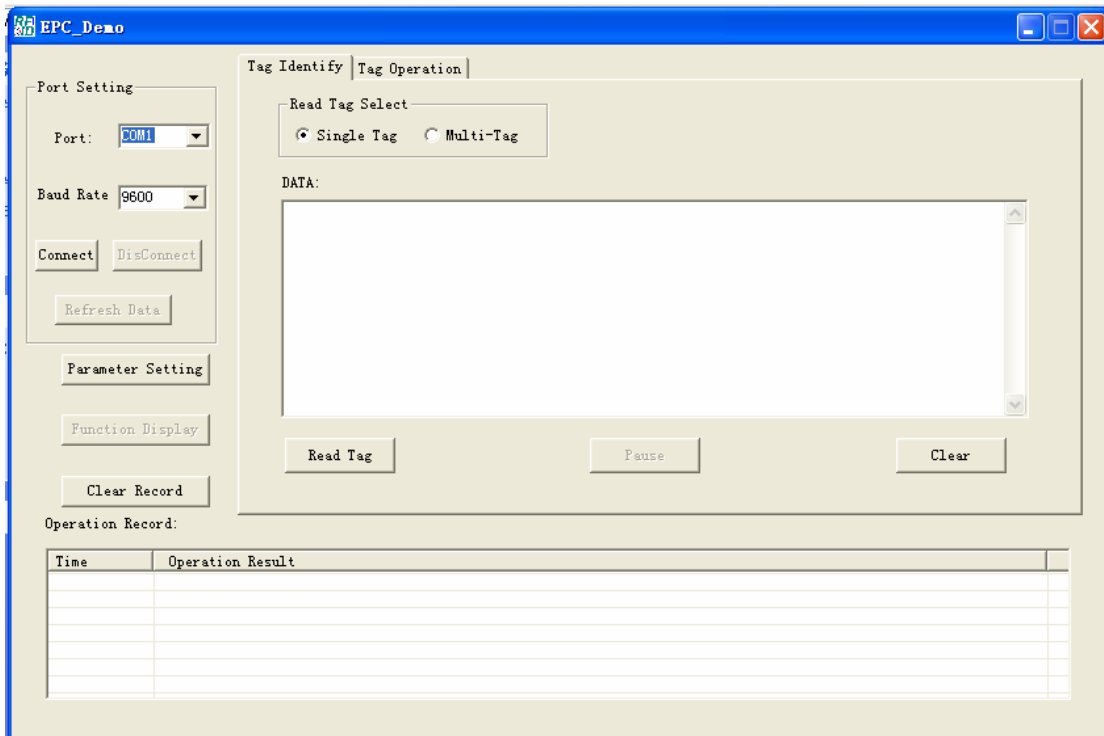
Click "Register control" once is ok.

## 2. Operation procedures



EPC\_Demo.exe

Double click icon , it will run Demo software。 It will appear the picture as below:



Picture 1: Running interface of parameters configuration procedure

Before click the setting parameters, please choose the correct serial port, then click the "connect" button, after connected successfully, in the "operation record" column there will be the following tips, it says connected successfully, can do with settings of parameters of reader/writer.

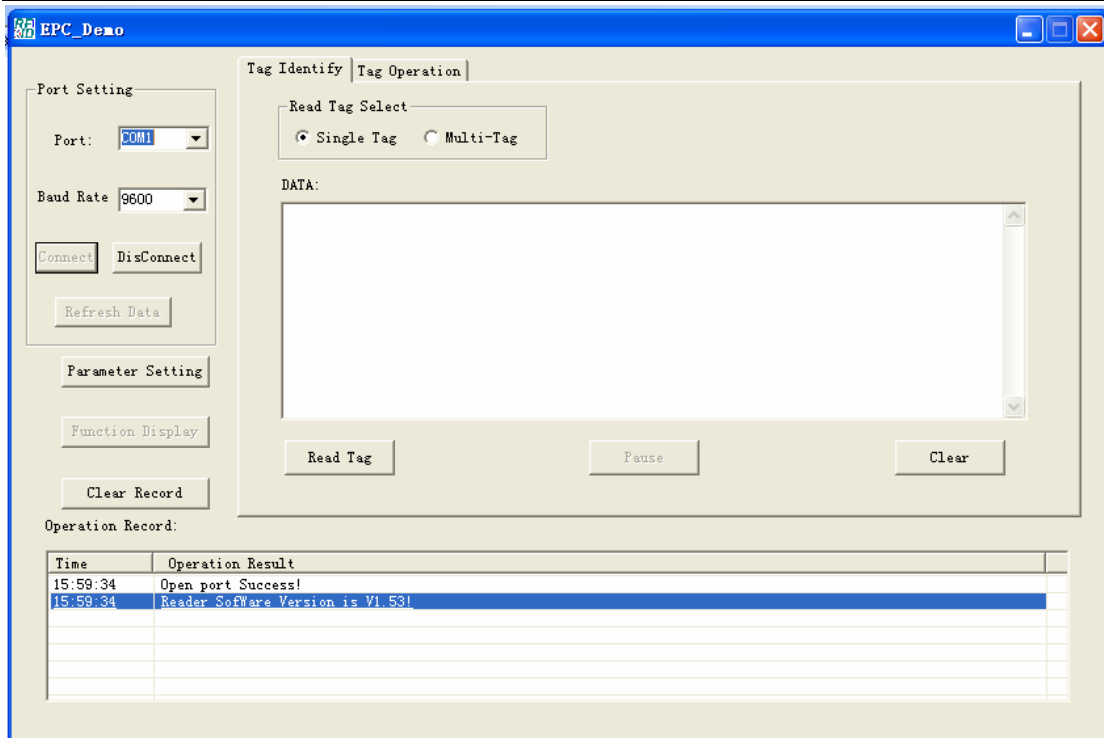
Operation Record:

Time	Operation Result
15:59:34	Open port Success!
15:59:34	Reader Software Version is V1.53!

Picture 2: Hints after connected successfully

### 3. Function Demo Instruction

After linked successfully, firstly will appear the interface of function demonstration.



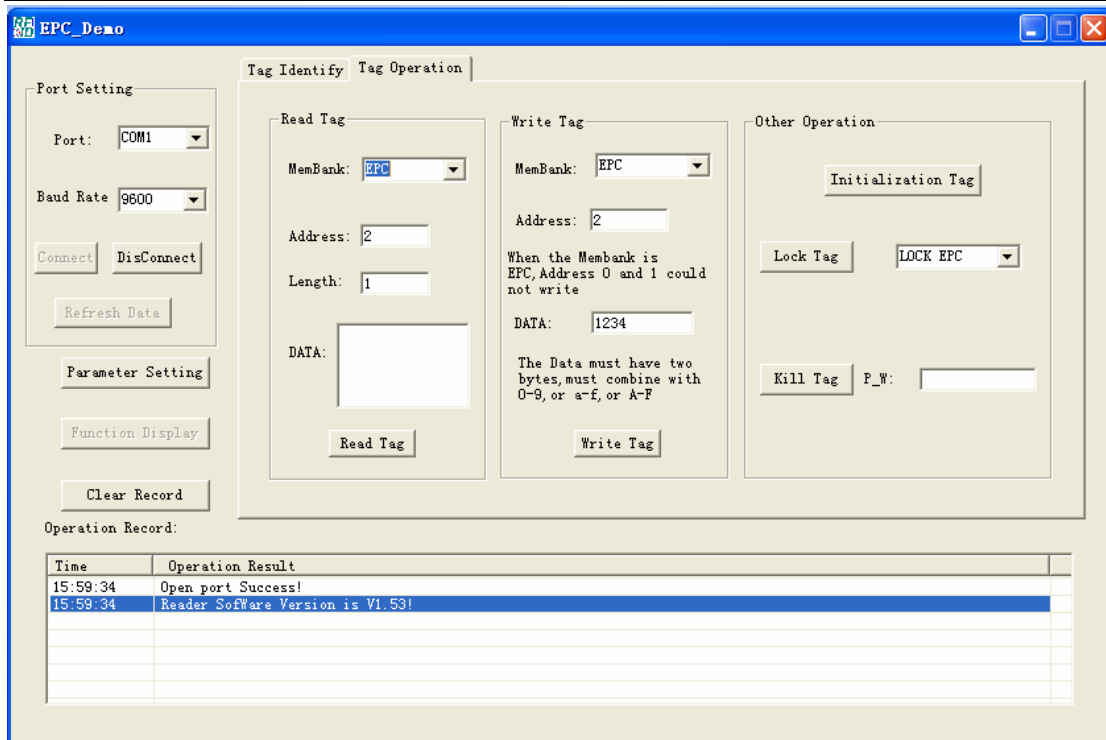
Picture 3: The interface after connected successfully and the interface of tag identification

### 3. 1 Tags identification

Through two single-choosing frames, can choose to read single-card or read multiple cards, after select reading mode, click on "Reading" button, then can display the ID number of the cards be read in the "data" column.

- "Pause" button does not work in the mode of reading single-card, in the mode of reading multiple cards is suspension for reading multiple cards.
- "Clear" button is to clear the ID number be read.

### 3. 2 Tags operation



Picture 4: Operation interface of label

Label operations include: reading labels, writing in labels, initializing labels, locking labels and destructing labels.

### ① Reading labels

Area number: there are only the "reserving area", "EPC area", "TID Area" and "user area" four areas to choose.

Address: the range entered is: 0-7, exceed this area there will be tips.

Length: the scope entered the :1-8, exceed this area there will be tips. The unit is Word (1Word = 2 Byte).

After setting up the parameters above, click on "reading the label" button, then can read the data which is set up area, and displayed in the "data" column.

### ② Writing in labels

Area number: the same to reading labels, it has four area numbers, but when choosing "reserving area", the following parameters will all get gray, prohibit users to write "reserving area."

Address: the range is 0-7, but when the area number is choosed of the "EPC", the address 0 and 1 can not be written.

Data: the four datas wrote in, must enter a four-bit data, request 0-9 and a-f or combination of A-F.

After setting up the parameters above, click "write in the label", then can write the data in appropriate area, and after writing successfully, in "Operation record" column there will be hints .

### ③ Initializing label

Click on the "initialize label" button, then can initialize the label.

#### ④ Locking labels

There are several choices for locking labels: "LOCK USER" "LOCK TID" "LOCK EPC" "LOCK ACCES" "LOCK KILL" and "LOCK ALL"

LOCK USER: lock users area, once they are locked, the data of users area only can read out, but can not be changed.

LOCK EPC: after locking EPC area, once locked, data of EPC area only can read out, but can not be changed.

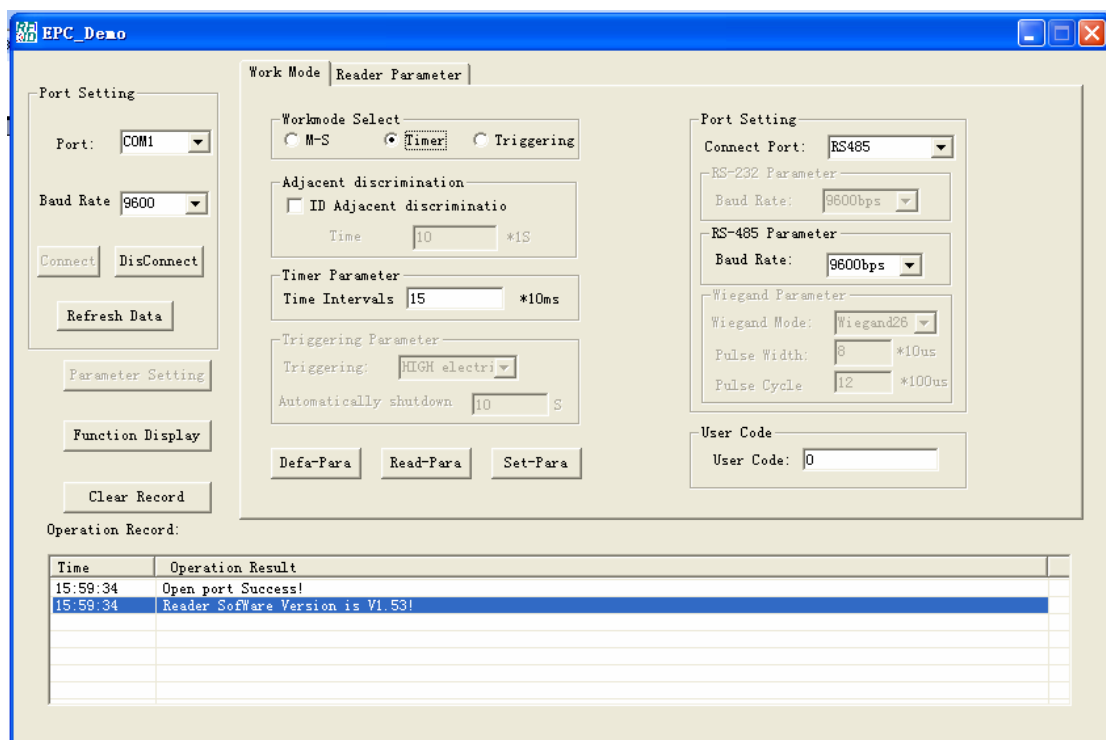
LOCK TID: lock TID area, once locked, data of TID area only can read out, but can not be modified.

For LOCK ACCES、LOCK KILL LOCK ALL functions here not to introduce, users should better not use these functions please, because these several lockings would damage labels.

#### ⑤ Destructing labels

When destructing labels, need to input a eight-bit long password, the password can not do destructing labels operation, once the label is destructed, the label will get invalid, please remember in mind and use carefully.

## 4. Setting of parameters



Pic 5: Working methods parameters and setting interface



## 4. 1 Working methods parameters

### The setting of parameters in the main and minor working methods

The main and minor working methods is working mode of the operation to the reader is completely via the host machine, under the main and minor working methods, the setting of parameters of readers is relatively simple.

This series of readers is demonstration program is the good example of using the main and minor working methods,

Operation instructions:

The default parameters: click on the "default parameters" button, the working parameters revert to the default parameters.

Query parameters: in the state of successful on-line, click on the "query parameters" button, can query to the setting value of the current parameters in readers.

Setting parameters: in the state of successful on-line, after setting parameters in place, click the "set parameters" button, to write the setting value of the current parameters into readers.

### Setting of parameters in timing working methods

Timing working methods is a working way of readers in accordance with the set time intervals, identify the labels periodically, below is a detailed description of each parameter.

- Timing intervals: when in timing working methods, the time interval of readers identify labels timing.

ID adjacent Discrimination: the reader achieves label ID data filtering function. If you choose ID adjacent discrimination, after the reader identifies label ID data each time, compare with the effective label ID data of before, if the same, to dispose tag ID data identified this time, if different, to discriminate as new and effective label ID data. If you do not choose the ID adjacent discrimination, the label ID data the reader identified are all effective data.

Operation instructions:

The default parameters: click on the "default parameters" button, the working parameters revert to the default parameters.

Query parameters: in the state of successful on-line, click on the "query parameters" button, can query to the setting value of the current parameters in readers.



Setting parameters: in the state of successful on-line, after setting parameters in place, click the "set parameters" button, to write the setting value of the current parameters into readers.

## The setting of parameters in triggering working methods

Triggering work is readers do not usually identify label, only in the circumstances of the external triggering source to trigger, just start to do a tag identification. In the circumstances of triggering sources effectively trigger, readers began to identify label in accordance with timing intervals, after the trigger signals are deleted and delayed "automatic shutdown delay" time, the reader stops identifying label timing.

Reader using triggering work methods can reduce the working power of reader. The following is a detailed description of the working parameters.

- Timing intervals: in triggering working methods, in circumstances of triggering effectively, the time interval that readers timing identify labels.

- Triggering: the option can be high electric plane triggering and triggering barrier.

Automatically shutdown delaying: This set is under triggering mode, automatically shutdown delaying time after the triggering signal is deleted.

Operation instructions:

The default parameters: click on the "default parameters" button, the working parameters revert to the default parameters.

Query parameters: in the state of successful on-line, click on the "query parameters" button, can query to the setting value of the current parameters in readers.

Setting parameters: in the state of successful on-line, after setting parameters in place, click the "set parameters" button, to write the setting value of the current parameters into readers.

## 4. 2 Communication Interface parameters

- Communication Interface type: according to the different communication interface of reader and controller, can choose Wiegand or RS-485 interface, RS-232 interface.



When the output interface option is for the RS-232 interface settings, the following working parameters related with RS-232 interface need to configure.

Baud rate settings: the initial baud rate value of RS-232 interface, this parameter can only be set as 9600.

When the output interface option is for the RS-485 interface settings, the following working parameters related with RS-485 interface need to configure.

Baud rate settings: the initial baud rate value of RS-485 interface, this parameter can only be set as 9600.

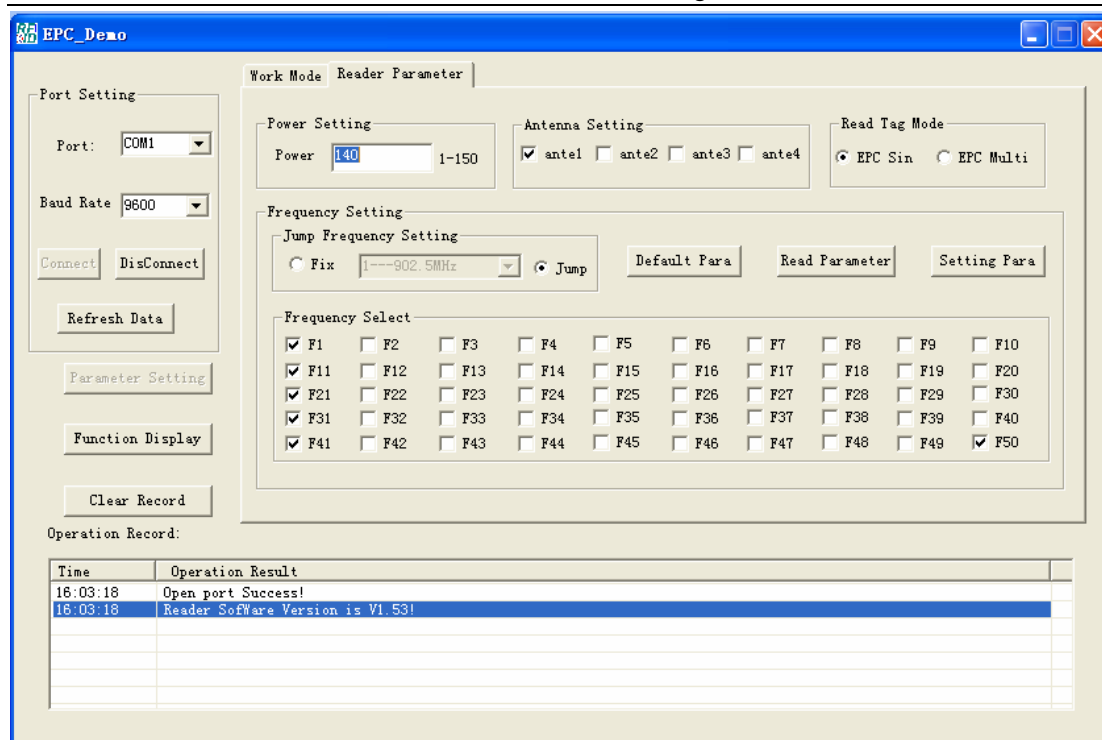
When choose Wiegand interface setting as the output interface, the following working parameters related with Wiegand interface need to configure.

- Wiegand protocol: can choose Wiegand26, Wiegand32 and Wiegand34.
- Pulse Width: the pulse outputting width in Wiegand agreement.
- Pulse cycle: pulse outputting cycle in Wiegand agreement.

User code: the station address code that users distribute to the reader, when is being used, to distinguish with other equipment. Can set as 0-ff.

## 4.3 Reader parameters





Picture 6:Setting interface of parameters of reader

The following is a detailed description of parameters of reader.

- Power settings: Reader RF power value setting, the power RMS range is 0-150, the greater the power value, the farther of the effective communication distance between the reader and label. Power values can be adjusted appropriately in accordance with application requirements.

- Antenna settings: this series readers can be divided into single-channel and multi-channel based on different models, to multi-channel reader, can choose relevant working antenna according to the actual situation and application requirements of the external access antenna of the reader/writer.

- Reading mode: reading mode is divided into single card and multiple cards in two ways. Single-card mode, there is only one card within the effective action range of the reader, you can choose single-card mode. Multiple cards mode, use anti-collision algorithm to do tags ID identification, multi-card identification can identify multiple labels within the effective action range of the reader.

- Hopping frequency settings: the reader can work with fixed-frequency or frequency-hopping. The fixed-frequency is communication between the reader and tag with a fixed-frequency, user can select a frequency point from the drop-down list of the frequency point; frequency hopping is communication between the reader and labels with selected frequency point sequence. User can choose the mode of frequency-hopping or fixed-frequency for the reader/writer to work.



Operation instructions:

The default parameters: click on the "default parameters" button, the working parameters revert to the default parameters.

Query parameters: in the state of successful on-line, click on the "query parameters" button, can query to the setting value of the current parameters in readers.

Setting parameters: in the state of successful on-line, after setting parameters in place, click the "set parameters" button, to write the setting value of current parameters into the readers.

**Note: the action of "Update" button is to make the parameters to be updated after setting of parameters each time, that is, after setting over parameters each time, just click on this button, the parameters set right now just can work.**