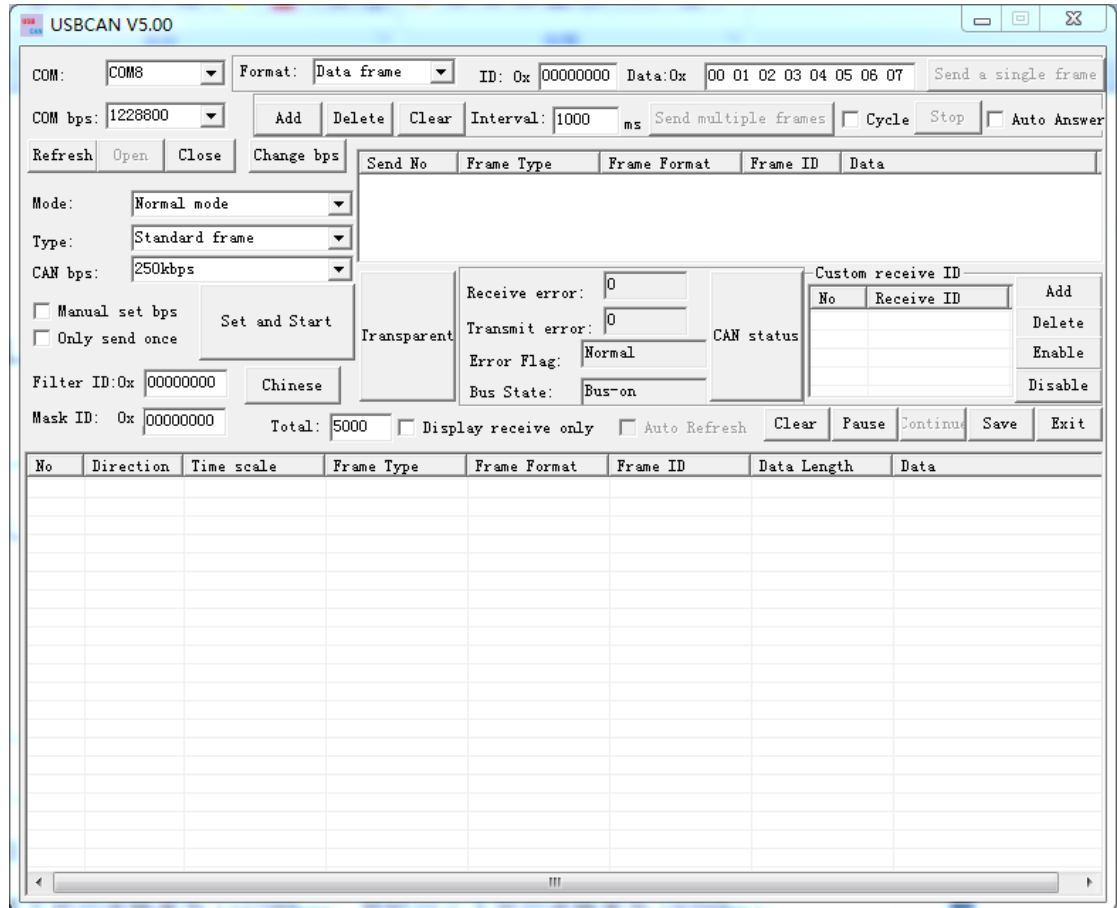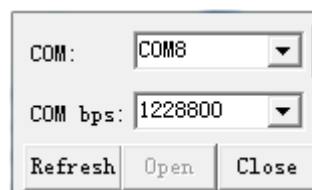# USB to CAN instructions

1. The software interface

2. Instructions for use

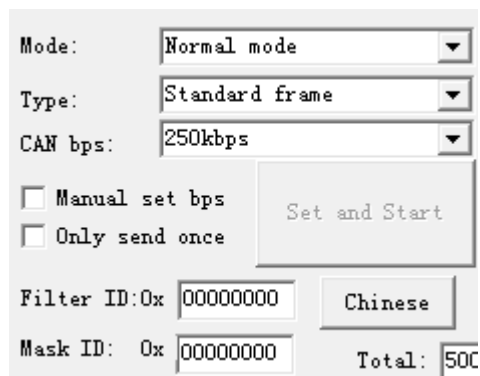### 2.1 USB (virtual COM port) is set

2.1.1 to install the driver (see drivers folder CAN driver)

2.1.2 Select port access, and Baud Rate (default baud rate is 1228800, plug in the USB to CAN send and receive lights simultaneously flash for baud rate 1228800bps flash two

corresponding baud rate to 115200bps, at the same time flash

three times the corresponding baud rate 19200bps, flash looked

corresponds to a baud rate of 9600 bps).

2.1.3 Click the Open button to complete the USB virtual COM

port settings

2.2. CAN communication settings

2.2.1 Select work mode（Work patterns include normal mode,

Loop back mode, silent mode, Loop back + silent mode）

Normal mode: is CAN normal communication model, CAN be

normal to

the bus to send and receive data

Loop back mode: send data CAN be sent to CAN bus, and at the

same

time, feedback internal region of acceptance, ignore accept pin of

the actual state and CAN be used for self test

Silent mode: CAN normal accept data, but CAN only send

recessive position, and CAN't really send message, often is

applied to the analysis

of CAN bus activities

Loop back + silent mode: the model can be used for "hot self

test", namely online self test. Like a ring back mode that self test,

but does not affect the CAN bus system

2.2.2 Select the frame type (including standard frame and extended frame)
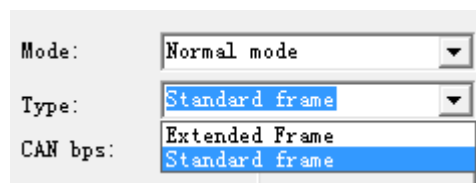
Standard frame: also known as CAN2.0A, the corresponding 11-bit

CAN ID communication

Extended frame: also known as CAN2.0B, corresponding to the

29-bit CAN ID communication

2.2.3 Select the CAN baud rate

Can directly select some CAN communication baud rate: 1M, 800K, 500K, 400K, 250K, 125K, 100K, 50K, 20K, 5K, etc.
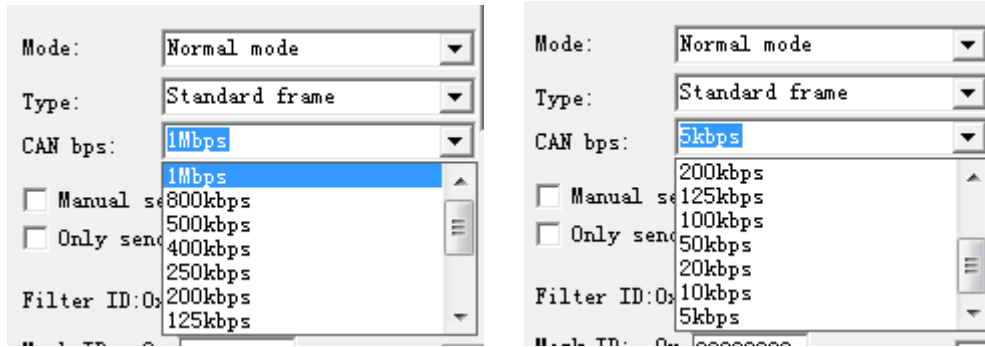
2.2.4 Click Settings and the start button, CAN communication is set up, this point can communicate with devices on the CAN bus

3. Send data to the CAN bus
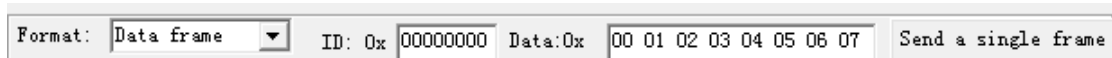
 Frame format contains data and remote frames, frame ID and sends data are hexadecimal data, for standard frame frame ID range of 0x00000000 0x000007fff extended frame frame ID Range 0x00000000 ~ 0x1fffffff. For example, we would like to CAN bus transmit a data frame, the data frame ID 0x123 That will six bytes of the corresponding send data for 0x11, 0x22, 0x33, 0x44, 0x55, 0x66, we can be set as follows:
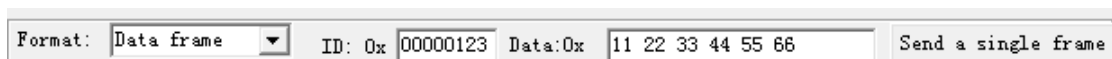
Click to send a single frame can be displayed in the the transceiver display area inside:

No	Direction	Time scale	Frame Type	Frame Format	Frame ID	Data Length	Data
0	Send	09:22:35:145	Data frame	Extended Frame	00000123	6	11 22 33 44 55 66

4. CAN bus data transceiver

No	Direction	Time scale	Frame Type	Frame Format	Frame ID	Data Length	Data
0	Send	09:22:35:145	Data frame	Extended Frame	00000123	6	11 22 33 44 55 66
1	Send	09:24:04:495	Data frame	Extended Frame	00000123	6	11 22 33 44 55 66
2	Send	09:24:12:799	Data frame	Extended Frame	00000111	8	11 22 33 44 55 66 77 88
3	Send	09:24:17:360	Data frame	Extended Frame	00000111	8	11 22 33 44 55 66 77 88
4	Send	09:24:18:000	Data frame	Extended Frame	00000111	8	11 22 33 44 55 66 77 88
5	Send	09:24:26:983	Data frame	Extended Frame	00000111	8	11 22 33 44 55 66 77 88
6	Send	09:24:27:407	Data frame	Extended Frame	00000111	8	11 22 33 44 55 66 77 88
7	Send	09:24:27:783	Data frame	Extended Frame	00000111	8	11 22 33 44 55 66 77 88
8	Send	09:24:50:023	Data frame	Extended Frame	00000111	8	01 02 03 04 05 06 07 08
9	Send	09:25:27:608	Data frame	Extended Frame	00000111	8	01 02 03 04 05 06 07 08
10	Send	09:26:05:407	Data frame	Extended Frame	00000111	8	01 02 03 04 05 06 07 08
11	Receive	09:26:05:446	Data frame	Extended frame	00000111	8	01 02 03 04 05 06 07 08
12	Send	09:26:05:959	Data frame	Extended Frame	00000111	8	01 02 03 04 05 06 07 08
13	Receive	09:26:05:998	Data frame	Extended frame	00000111	8	01 02 03 04 05 06 07 08
14	Send	09:26:06:447	Data frame	Extended Frame	00000111	8	01 02 03 04 05 06 07 08
15	Receive	09:26:06:485	Data frame	Extended frame	00000111	8	01 02 03 04 05 06 07 08
16	Send	09:26:06:735	Data frame	Extended Frame	00000111	8	01 02 03 04 05 06 07 08
17	Receive	09:26:06:775	Data frame	Extended frame	00000111	8	01 02 03 04 05 06 07 08

Total: receiving or sending display can set your own

Clear: empty to send and receive data display so data

Pause: pause in the sending and receiving display area shows that other data Continue to: continue to show to send and receive data

Save: can send and receive data buffer data storage that can hold two format, excel or TXT text

Display receive only: can send and receive data area show only accept data

Auto refresh: when display only accept data, CAN choose to be automatic refresh, this time data are real-time refresh, rather than increasing column display, this function CAN be concluded CAN summarize ID data
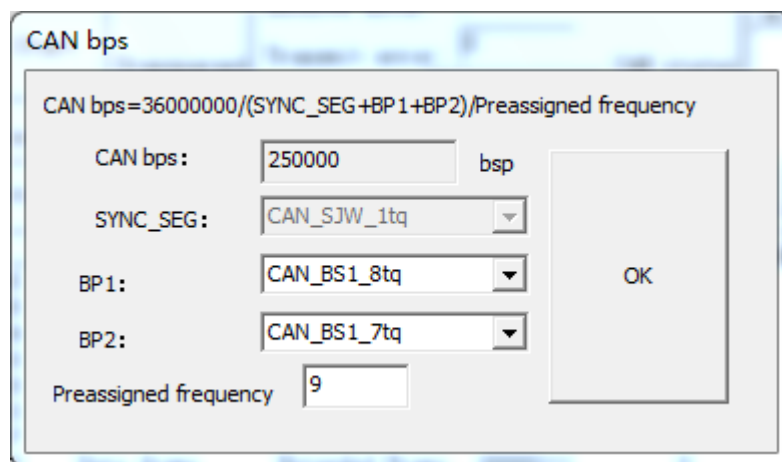
5：Other Help

5.1 Q: CAN baud rate can customize it?

A: Yes

`☐ Manual set bps`

Commonly CAN baud rate, you can set the CAN baud rate of CAN Baud Rate Click the Customize dialog box will display the following:

CAN bps

CAN bps=36000000/(SYNC_SEG+BP1+BP2)/Preassigned frequency

CAN bps: 250000 bsp

SYNC_SEG: CAN_SJW_1tq

BP1: CAN_BS1_8tq

BP2: CAN_BS1_7tq

Preassigned frequency 9

OK

The first row shows the CAN baud rate calculation method, by setting the BP1,BP2, The Preassigned frequency CAN baud rate to calculate your needs

5.2 Q: Disable packet automatic retransmission What

`☐ Only send once`

A: CAN communication is generally the default configuration are CAN bus send data unsuccessful automatic retransmission of data When enabled prohibit message retransmission, send data to the CAN bus, but success or failure are no longer sent, the function inused for cyclic query mode enabled.

5.3 Q: how to set up filter ID and shielding ID?

A: When a certain one of the mask ID is set to 1, the bit corresponding to the received ID and filtering ID corresponding must This bit is received. A one mask ID is set to 0, and the received ID does not need to be consistent with the filter corresponding to the ID bits.For example:

We need to receive 0 for all extended frame ID data can be set so:

Filter ID:00000001

Mask   ID:00000001

On it.The final bit of the mask ID is 1, the last digit must be received ID matches the ID of the filtering to be received.

For example, we want to accept only the standard frame 0x123 data, can be set as follows:

Filter ID：00000123

Mask   ID：000007FF

All bits must be received and filtering ID corresponding

Want to receive extended frame 0x123 data, can be set as follows：
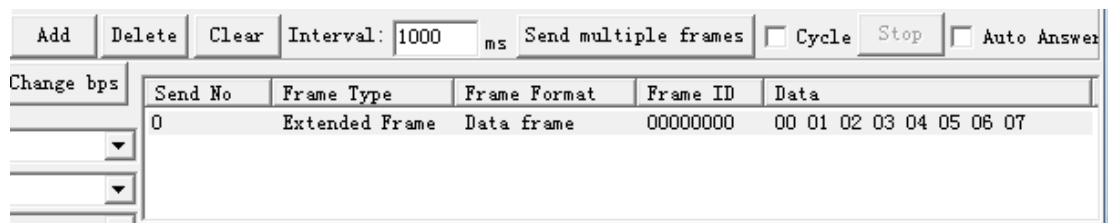
Filter ID：00000123

Mask   ID：1FFFFFFF

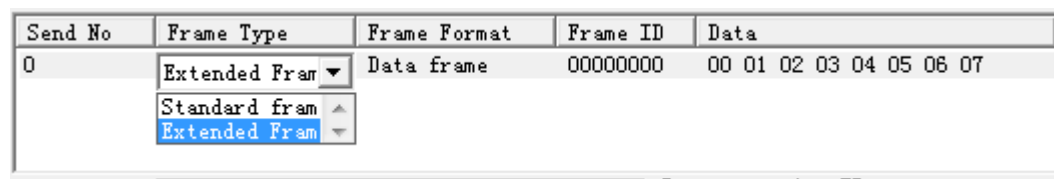## 5.4 Q: Can multiple ID data together to send it

A: Yes

The above is to send a multi-frame set area, when we click the Add button, you will find more than one line default data found that the multi-frame data area

Following the expansion of the mouse to place the frame type frame, left click on what you can select the frame type for the expansion of the frame or standard frame :

The mouse to place the frame format the following data frame, left-click can select a frame format for data or remote frame :
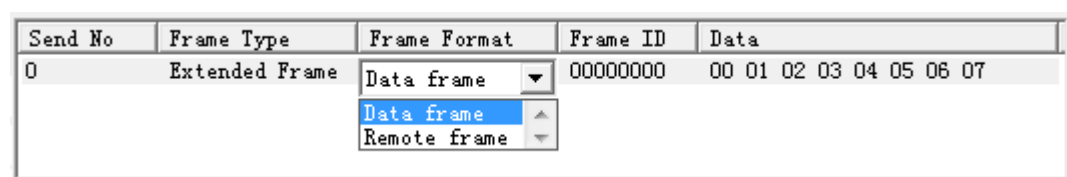
Mouse frame ID data below, left-click, you can modify the frame

ID:

Send No	Frame Type	Frame Format	Frame ID	Data
0	Extended Frame	Data frame	00000000	00 01 02 03 04 05 06 07

Such as frame ID: 00000000 modify 00000123

Send No	Frame Type	Frame Format	Frame ID	Data
0	Extended Frame	Data frame	00000123	00 01 02 03 04 05 06 07

The mouse to place the data following data 00 01 02 03 04 05 06 07, left-click the mouse, can be modified to send data:

Send No	Frame Type	Frame Format	Frame ID	Data
0	Extended Frame	Data frame	00000123	00 01 02 03 04 05 06 07

Such as data modifications 11 22 33 44 55 66 77 88 :

Send No	Frame Type	Frame Format	Frame ID	Data
0	Extended Frame	Data frame	00000123	00 01 02 03 04 05 06 07

And then a few clicks increase:

Send No	Frame Type	Frame Format	Frame ID	Data
0	Extended Frame	Data frame	00000123	11 22 33 44 55 66 77 88
1	Extended Frame	Data frame	00000022	00 01 02 03 04 05 06 07
2	Extended Frame	Data frame	00000001	00 01 02 03 04 05 06 07

Click to send multiple frames, the converter from the send sequence number 0 is sent sequentially, the interval between frames transmitted can modify the settings Interval: 1000 ms,
May need to set the interval value. Need to loop send can choose

selected checkbox □ Cycle

Cancel sending multiple frames can click [Stop] On it.

5.5 Q: CAN bus reply data it

A: Yes

Send No	Frame Type	Frame Format	Frame ID	Data
0	Extended Frame	Data frame	00000001	11 22 33 44 55 66 77 88
1	Extended Frame	Data frame	00000002	00 01 02 03 04 05 06 07

Click ☑ Auto Answer, the original sending multi-frame into the receive data, when we received the ID of the received data, we will automatically send reply data frame area was originally sent to the CAN bus.

5.6 Q: Can I send and receive display area can only display data received.

A: Yes

Only need to click □ Display receive only On it.

The following status display data received from the CAN bus
☑ Display receive only

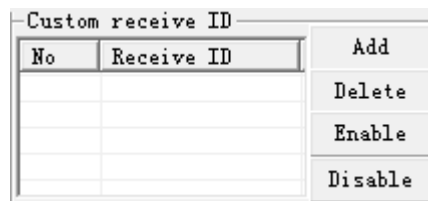## 5.7 Q: The received data can not be displayed in the order, but refresh display it

A: Yes

Only need to click □ Auto Refresh On it.

The following status automatically refresh the display

☑ Auto Refresh

5.8 Q: I can set to show what I want to receive the ID?

A: Yes

No	Receive ID	
		Add
		Delete
		Enable
		Disable

Custom receive ID

Can set the ID of the receiver inside the editing dialogue in the above paragraph

For example, we just want to receive ID 0x00000001, 0x00000002, 0x00000003 data, we can set up as follows:

Custom receive ID

No	Receive ID	
0	00000001	Add
1	00000002	Delete
2	00000003	Enable
		Disable
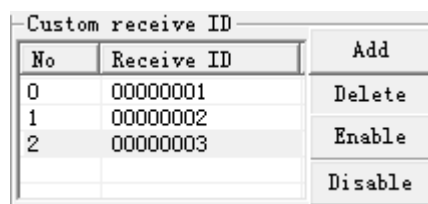
Click the button [Enable], Only on sending the three ID data converter, Click the button [Disable], All the receiving device will be restored to.

5.9 Q: You can view the device CAN state.

A: Yes

接收错误计数器:	0	
发送错误计算器:	0	CAN状态
错误:标志	正常	
通讯状态:	在线	

Click the button , CAN status of the devices will be displayed

5.10 Q: USB (COM) port baud rate can be modified

A: We provide four kinds of CAN baud rate to choose (1228800bps, 115200bps, 19200bps, 9600bps select)

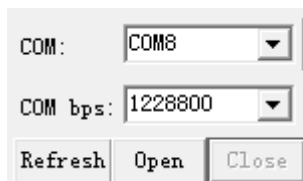USB to CAN transceiver power-on indicator light will flash simultaneously

Flash - USB (COM) baud rate for 1228800bps

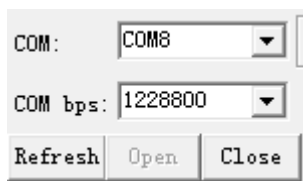Flash twice - USB (COM) baud rate to 115200bps

Flashes three - USB (COM) baud rate is 19200bps

While flash looked - USB (COM) baud rate of 9600bps

Open software based on the number of the lights flashing to set the baud rate, the default is flashed (1228800bps)
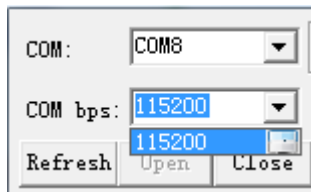

Click the Open button

Want to change the baud rate in the Baud Rate box to select such

as 115200bps

After the click the button , the baud rate is changed to 115200bps, close the COM port and baud rate Sherwin 115200bps, you can click to open communication in 115200bps

5. 11 Q: transparent transfer function should be used for what occasion

A: transparent transmission can be used for two or more of the 232 devices by means of a CAN bus communication, we only need to set the local ID to access the remote ID, the two devices can be like 232 as communication. Generally not recommended to use!