

USB2CAN C# demo V1.3 Update Description

1. Error Frame

If the usb2can module go into bus-off state, especially not CAN-BUS connection, It will auto send error frame to PC consistently. So if you do not filter the error frame. Too many error frame will eating up the memory in your application.

Pls refer to the commented out code. This code can help to filter out the error frame.

`void inputFromDev(object source, System.Timers.ElapsedEventArgs e)`

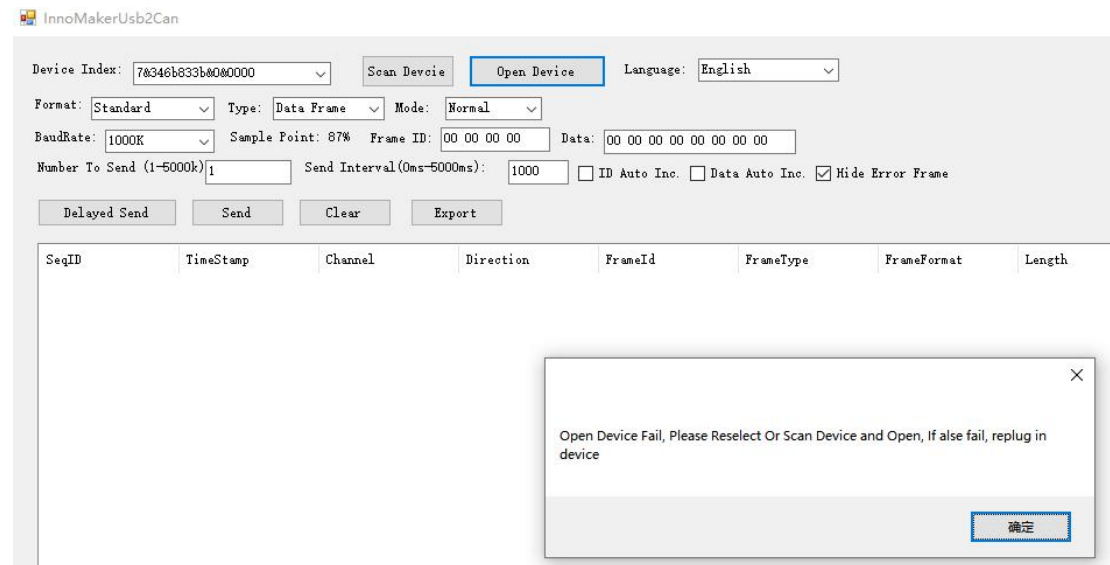
```
1288 try
1289 {
1290     recv_buf_lock.Enter(ref _lock);
1291
1292     /// Check if it is error frame, if you do not want to receive error frame, you can refer to this example
1293     /// Too many error frame will eating up the memory in your application, especially usb2can in bus-off state(not connect to the CAN-Bus)
1294     ///
1295     /*
1296     UInt32 frameId = BitConverter.ToUInt32(inputBytes, 4);
1297     /// If it is not an error frame
1298     if ((frameId & usbIO.Can_Err_Flag) == 0x00)
1299     {
1300         recBufList.Add(inputBytes);
1301     }
1302     */
1303
1304     recBufList.Add(inputBytes);
1305 }
1306
1307 }
```

`ListViewItem getListItem(Byte[] inputBytes):`

```
1440 /// If Error Frame
1441 if ((frameId & usbIO.Can_Err_Flag) != 0x00)
1442 {
1443
1444     if (currentLanguage == SystemLanguage.ChineseLanguage)
1445     {
1446         directionStr = "接受錯誤[" + rxErrorNum++.ToString() + "]";
1447     }
1448     else
1449     {
1450         directionStr = "Recv Error[" + rxErrorNum++.ToString() + "]";
1451     }
1452
1453     lvi.SubItems[3].Text = directionStr;
1454     if ((frameId & usbIO.Can_Err_Restarted) != 0x00)
1455     {
1456         lvi.SubItems.Add("Fail: CAN_STATE_ERROR_ACTIVE");
1457     }
1458
1459     else if ((frameId & usbIO.Can_Err_BusOff) != 0x00)
1460     {
1461         lvi.SubItems.Add("Fail: CAN_STATE_BUS_OFF");
1462     }
1463
1464 }
1465
1466 }
```

2. Unexpected Application Shutdowns and not release the device

If your application has closed unexpectedly. The WinUsb driver will not release the USB2CAN device. So you can't re-open or close this device, Only re-plug the USB2CAN can solve this problem.



So added closeDevice() when the form close.

```
1915 private void InnoMakerusb2Can_FormClosing(object sender, FormClosingEventArgs e)
1916 {
1917     //It is very important to close device before force close the tools
1918     //Otherwise the WinUsb will not released the usb2can device handle. It's only re-plug to solve this problem.
1919     _closeDevice();
1920 }
1921
1922
1923
```