

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;

using System.IO.Ports;
namespace GPS
{
    public partial class GPS : Form
    {
        public GPS()
        {
            InitializeComponent();
        }
    }
}

#region Methods
public void SerialConnect(){
    using (SerialPort sp = new SerialPort("COM6", 9600, Parity.None,8, StopBits.One))
    {
        try
        {
            sp.Open();
            byte[] buffer = new byte[sp.BytesToRead];
            //read directly
            sp.Read(buffer, 0, buffer.Length);
            sp.Close();
            sp.Dispose();

            //read using a Stream
            //textBox1.Text = System.Text.ASCIIEncoding.GetEncoding(0).GetString(buffer);
            Parse(System.Text.ASCIIEncoding.GetEncoding(0).GetString(buffer));
        }
        catch (Exception ex)
        {
            MessageBox.Show(ex.Message.ToString());
        }
    }
}

//Parse returned string for Latitude and Longitude
public void Parse(string s)
{
    string[] buffer = new string[1000];
    string latitude = "";
    string longitude = "";
    buffer = s.Split(',');
    for (int i = 0; i < buffer.Length; i++)
    {
        if (buffer[i].ToString() == "N" && i >= 1)
        {
            latitude = buffer[i - 1].ToString() + "N";
        }
        if (buffer[i].ToString() == "W" && i >= 1)
        {
            longitude = buffer[i - 1].ToString() + "W";
        }
    }
    textBox1.Text = longitude+ " " + latitude;
}
}

#endregion
#region Events
private void button1_Click(object sender, EventArgs e)
```

```
    {
        SerialConnect();
    }

    private void button2_Click(object sender, EventArgs e)
    {
        textBox1.Text = "";
    }
#endregion
}

}
```