Week6 การสื่อสารผ่านอนุกรม

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

namespace week6_rs232
{
    public partial class Form1 : Form
    {
        string str1;

        public Form1()
        {
            InitializeComponent();
            timer1.Start();
            serialPort1.Open();
        }

        private void button1_Click(object sender, EventArgs e)
        {
          //  serialPort1.Open();
            serialPort1.WriteLine(textBox2.Text);

            Thread.Sleep(500);
            int n = serialPort1.BytesToRead;
            if (n > 0)
            {
                str1 = serialPort1.ReadLine();

                textBox1.Text = str1;
            }
          // serialPort1.Close();
        }

        private void serialPort1_DataReceived(object sender,
System.IO.Ports.SerialDataReceivedEventArgs e)
        {
          //str1 = serialPort1.ReadLine();

        }

        private void timer1_Tick(object sender, EventArgs e)
        {

            serialPort1.WriteLine("3");

            Thread.Sleep(100);
            int n = serialPort1.BytesToRead;
```

```csharp
            if (n > 0)
            {
                str1 = serialPort1.ReadLine();

                textBox1.Text = str1;
                if (str1 == "3a") sw1.BackColor = Color.Red;
                if (str1 == "3b") sw1.BackColor = Color.Gray;


            }

        }

        private void button2_Click(object sender, EventArgs e)
        {
          //  serialPort1.Open();
            serialPort1.WriteLine("1");

            Thread.Sleep(500);
            int n = serialPort1.BytesToRead;
            if (n > 0)
            {
                str1 = serialPort1.ReadLine();

                textBox1.Text = str1;
            }
        //    serialPort1.Close();
        }

        private void button3_Click(object sender, EventArgs e)
        {
           // serialPort1.Open();
            serialPort1.WriteLine("0");

            Thread.Sleep(500);
            int n = serialPort1.BytesToRead;
            if (n > 0)
            {
                str1 = serialPort1.ReadLine();

                textBox1.Text = str1;
            }
          //  serialPort1.Close();
        }
    }
}
```

```
void setup()
{
 Serial.begin(9600);
 pinMode(13,OUTPUT);
  pinMode(2, INPUT);
}


void loop()
{
  byte s;
  int n = Serial.available();
  if (n>0)
  {
   s = Serial.read();
   Serial.write(s);
   if(s=='1') digitalWrite(13,1);
   if(s=='0') digitalWrite(13,0);

   if(s=='3')
   {if (digitalRead(2)==1)
    {
      Serial.write('a');
    }
```

```
else

{

  Serial.write('b');

}

}

}

}
```