

Week6_RS232

2/09/63

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```
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.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)
{

}

private void timer1_Tick(object sender, EventArgs e)
{
    serialPort1.WriteLine("3");

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

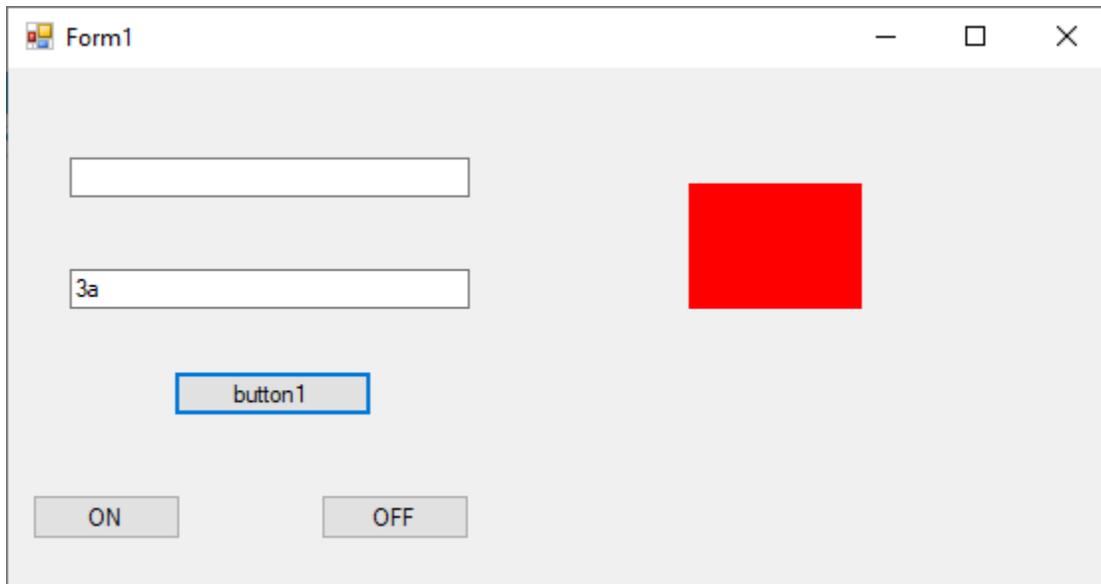
    Thread.Sleep(500);
    int n = serialPort1.BytesToRead;
    if (n > 0)
    {
        str1 = serialPort1.ReadLine();
```

```

        textBox1.Text = str1;
    }

    //serialPort1.Close();
}
}
}

```



sketch_sep02a | Arduino 1.8.13

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sketch_sep02a

```

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');
    }
  }
}

```

Done uploading.

Sketch uses 1952 bytes (6%) of program storage space. Maximum is 32256 bytes.
Global variables use 184 bytes (8%) of dynamic memory, leaving 1864 bytes for local variables. Maximum is 2048 bytes.

16 Arduino Uno an COM3

```
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');
```

```
}
```

```
}
```

```
}
```