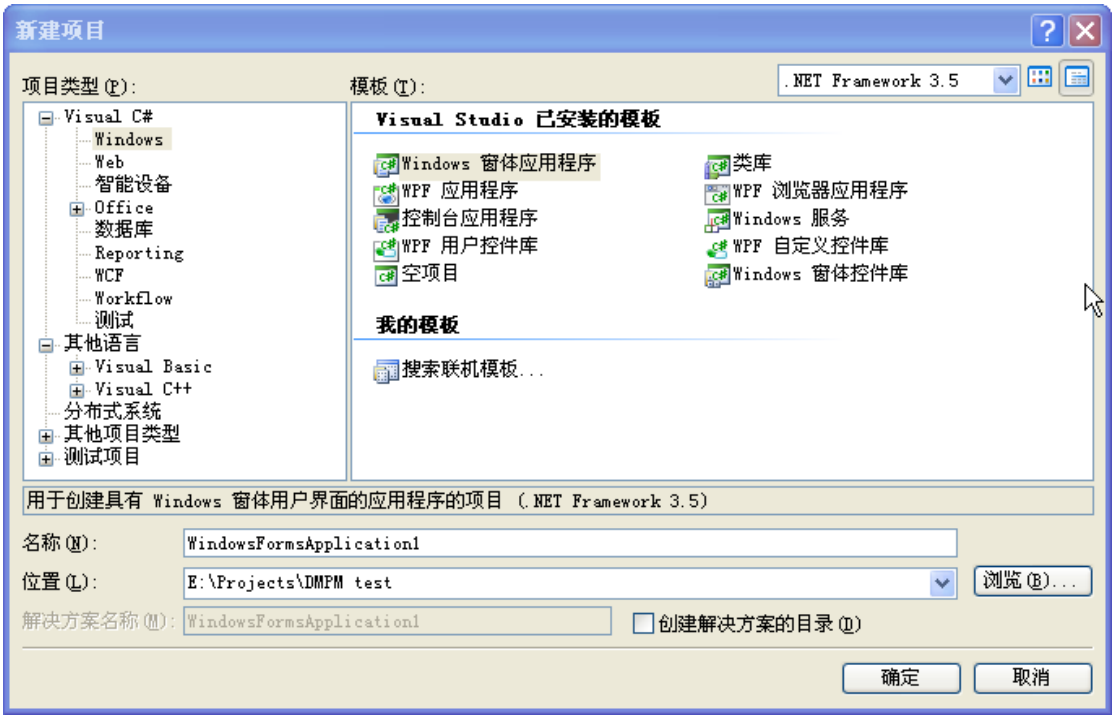
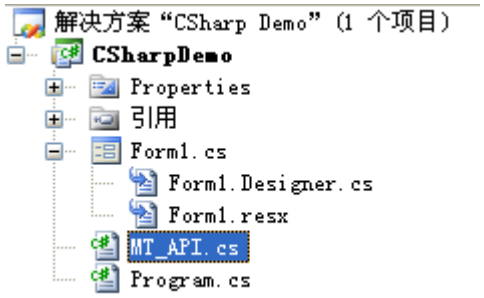
Windows 环境下 C#开发例程

注：本例程基于 Visual Studio 2008,其它版本类似

1 新建一个 Windows 窗体应用程序



2 添加接口文件 MT_API.cs 到工程中

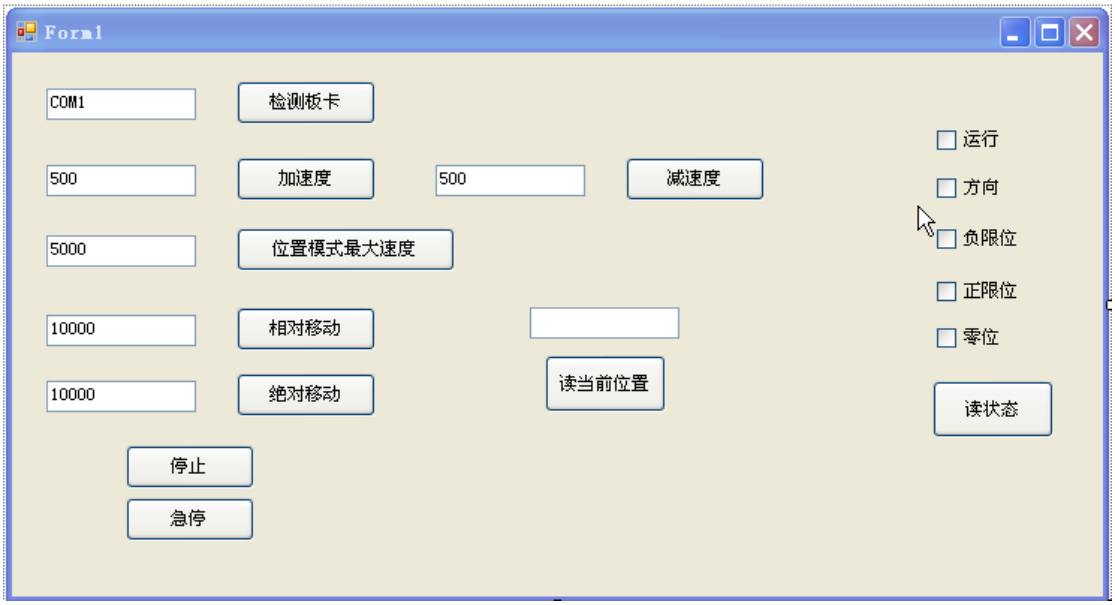


MT_API 提供的函数接口如下：

```
8  public class MT_API
9  {
10     //初始化
11     [DllImport("MT_API.dll",CharSet=CharSet.Ansi,CallingConvention=Ca
12     public static extern int MT_Init();
13
14     [DllImport("MT_API.dll", CharSet = CharSet.Ansi, CallingConventic
15     public static extern int MT_DeInit();
16
17     [DllImport("MT_API.dll", CharSet = CharSet.Ansi, CallingConventic
18     public static extern int MT_Get_Dll_Version(ref String sVer);
19
20     //通信端口
21     [DllImport("MT_API.dll", CharSet = CharSet.Ansi, CallingConventic
22     public static extern int MT_Close_UART();
23
24     [DllImport("MT_API.dll", CharSet = CharSet.Ansi, CallingConventic
25     public static extern int MT_Close_USB();
26
27     [DllImport("MT_API.dll", CharSet = CharSet.Ansi, CallingConventic
28     public static extern int MT_Open_USB();
29
```

详细完整的函数请看 MT_SDK 手册

3 制作界面如下



4 申请接口资源和释放资源

在窗体 Load 事件中初始化接口

```
private void Form1_Load(object sender, EventArgs e)
{
    MT_API.MT_Init();
}
```

在窗体关闭事件中释放接口资源

```
private void Form1_FormClosed(object sender, FormClosedE
{
    MT_API.MT_DeInit();
}
```

5 打开通信口和检测板卡

```
private void btn_Check_Click(object sender, EventArgs e)
{
    MT_API.MT_Close_UART();
    MT_API.MT_Close_USB();
    if(0!=MT_API.MT_Open_UART(txt_Port.Text))
    {
        MessageBox.Show("串口连接错误");
        return;
    }


    if(0==MT_API.MT_Check())
    {
        MessageBox.Show("ok");
    }
    else
    {
        MessageBox.Show("NO card");
    }
}
```

6 加速减速设置

```
private void btn_Acc_Click(object sender, EventArgs e)
{
    Int32 iResult;
    iResult=MT_API.MT_Set_Axis_Acc(0, Convert.ToInt32(txt_Acc.Text));
    if(0==iResult)
    {
        MessageBox.Show("ok");
    }
}

private void btn_Dec_Click(object sender, EventArgs e)
{
    Int32 iResult;
    iResult=MT_API.MT_Set_Axis_Dec(0, Convert.ToInt32(txt_Dec.Text));
    if (0 == iResult)
    {
        MessageBox.Show("ok");
    }
}
```

7 设置最大匀速运行速度

```
private void btn_MaxV_Click(object sender, EventArgs e)
{
    Int32 iResult;
    iResult=MT_API.MT_Set_Axis_Position_V_Max(0, Convert.ToInt32(txt_MaxV.Text));
    if (0 == iResult)
    {
        MessageBox.Show("ok");
    }
}
```

8 相对方式运动和绝对方式运动

```
private void btn_Ref_Click(object sender, EventArgs e)
{
    Int32 iResult;
    MT_API.MT_Set_Axis_Mode_Position(0);
    iResult = MT_API.MT_Set_Axis_Position_P_Target_Rel(0, Convert.ToInt32(txt_Ref.T
    if (0 == iResult)
    {
        MessageBox.Show("ok");
    }
}

private void btn_Abs_Click(object sender, EventArgs e)
{
    Int32 iResult;
    MT_API.MT_Set_Axis_Mode_Position(0);
    iResult=MT_API.MT_Set_Axis_Position_P_Target_Abs(0, Convert.ToInt32(txt_Abs.Te
    if (0 == iResult)
    {
        MessageBox.Show("ok");
    }
}
```

9 编译

10 运行

将 MT_API.dll 复制到 exe 同目录，

双击运行