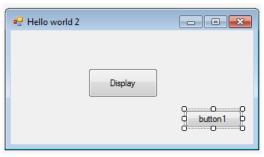
## Removing unwanted components AND event handler from the form

What if you accidentally added components and want to remove them, as well as the corresponding event handler?

1. Continuing with Hello World2 project (we did in class), try and drag another button into the form.

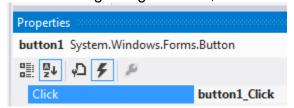


- 2. Now double-click on the button, so VS will generate the event handler.
- 3. In these cases you MUST remove the button from the form FIRST, before the event handling code, otherwise you get an error. So, go back to From designer and click and delete the unwanted button.
- 4. Now go back to the **Form code Form1.cs** and delete the corresponding event handling method.

### Remove unwanted Event Handler BUT keep the GUI Component

What if you created the component and event handler but now want to just keep the GUI component on the form, but want to remove the event handler.

- 5. Add back the unwanted button.
- 6. **Double-click the button** to auto generate the event handling code.
- 7. From the Form Designer, click on the unwanted button
- 8. From the Properties panel click the lightning bolt icon, i.e.:



- 9. This takes you to the Click event property. You can now just select and delete it and **press** <a href="#">Enter</a>. This should **remove the call to the the event handling code**.
- 10. Finally you **go back to Form1.cs code** and delete the event handling code if it is still there manually (it may still be there **if you had entered code in the event handler**). However you should notice the GUI component is still on the form

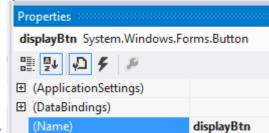
(Note: the is the Properties icon which allows you to reset the properties back to the default sequence)

#### Renaming GUI Components and Event handler

If you made a mistake while naming the GUI components and you want to rename it, then it is pretty straight forward. However, if you also want to rename the event handler method to reflect the new component name, then you have to be careful, as you cannot just go into Form1.cs program and just rename the handler.

#### Continuing with Hello World2 project

1. From the form1 designer, click on the main Display button



2. Go to the Name property and rename as shown:

If you go back to the **Form1.cs code**, you will find that the event handler is still the original name, rather than **displayBtn\_Click** 

To see what you have actually changed, go and view the code on the file **Form1.Designer.cs** 

```
29 🖨
            private void InitializeComponent()
30
                 this.displayBtn = new System.Windows.Forms.Button();
31
                 this.SuspendLayout();
32
33
                 //
34
                 // displayBtn
35
                 //
                 this.displayBtn.Location = new System.Drawing.Point(101, 80);
36
37
                 this.displayBtn.Name = "displayBtn";
                 this.displayBtn.Size = new System.Drawing.Size(85, 35);
38
39
                 this.displayBtn.TabIndex = 0;
                 this.displayBtn.Text = "Display";
40
                 this.displayBtn.UseVisualStyleBackColor = true;
41
                 this.displayBtn.Click += new System.EventHandler(this.messageButton Click)
42
43
                 // Form1
44
45
                 //
                 this.AutoScaleDimensions = new System.Drawing.SizeF(6F, 13F);
46
                 this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
47
                 this.ClientSize = new System.Drawing.Size(284, 176);
48
49
                 this.Controls.Add(this.displayBtn);
50
                 this.Name = "Form1";
                 this.Text = "Form1";
51
52
                 this.ResumeLayout(false);
53
54
            }
55
56
            #endregion
57
58
            private System.Windows.Forms.Button displayBtn;
59
```

You can see the button's name is changed but the event handler that is using is still "messageButton\_Click" on **line 42**. So, if you had changed the event handler's name on **Form1.cs**, but NOT in this file as well, your program would have **crashed**.

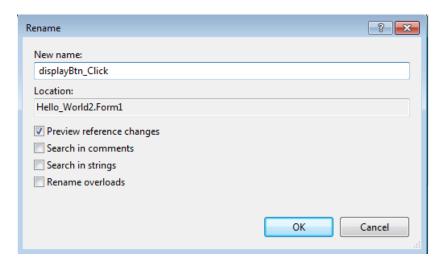
- 3. To change the event handler's name, go to **Form1.cs** code
- 4. Place the mouse anyway inside the event handler's name, i.e. messageButton\_Click

```
Form1.cs* + X Form1.cs [Design]*
Hello World2.Form1

¬ □ messageButton_Click(object sender, EventArgs e)

     9 using System.Windows.Forms;
     10
     11 ⊟namespace Hello_World2
     12
         \{
     13 🖨
              public partial class Form1 : For
     14
     15 🖨
                   public Form1()
     16
                   {
     17
                       InitializeComponent();
                   }
     19
                   private void messageButton_Click(object sender, EventArgs e)
     20
     21
                       Console.WriteLine("Goodbye Earth");
     22
     23
     24
              }
     25
         }
     26
```

- 5. Now right-click→Refactor→Rename
- 6. Change the name as shown and click OK:



7. It ask if you want to apply the changes to these areas of the program and you just click Apply.

You should find that the event handler's name has been changed in both **Form1.cs** and **Form1.Designer.cs** 

# Additional From your text

If you are new to the Visual Studio environment you should go through the following: <u>Tutorial</u> 1-1,1-2,1-3,1-4,1-5

To get used to some of the VC# GUI components, go through **Tutorial 2-3,2-4,2-5**