

# How to read/write text file

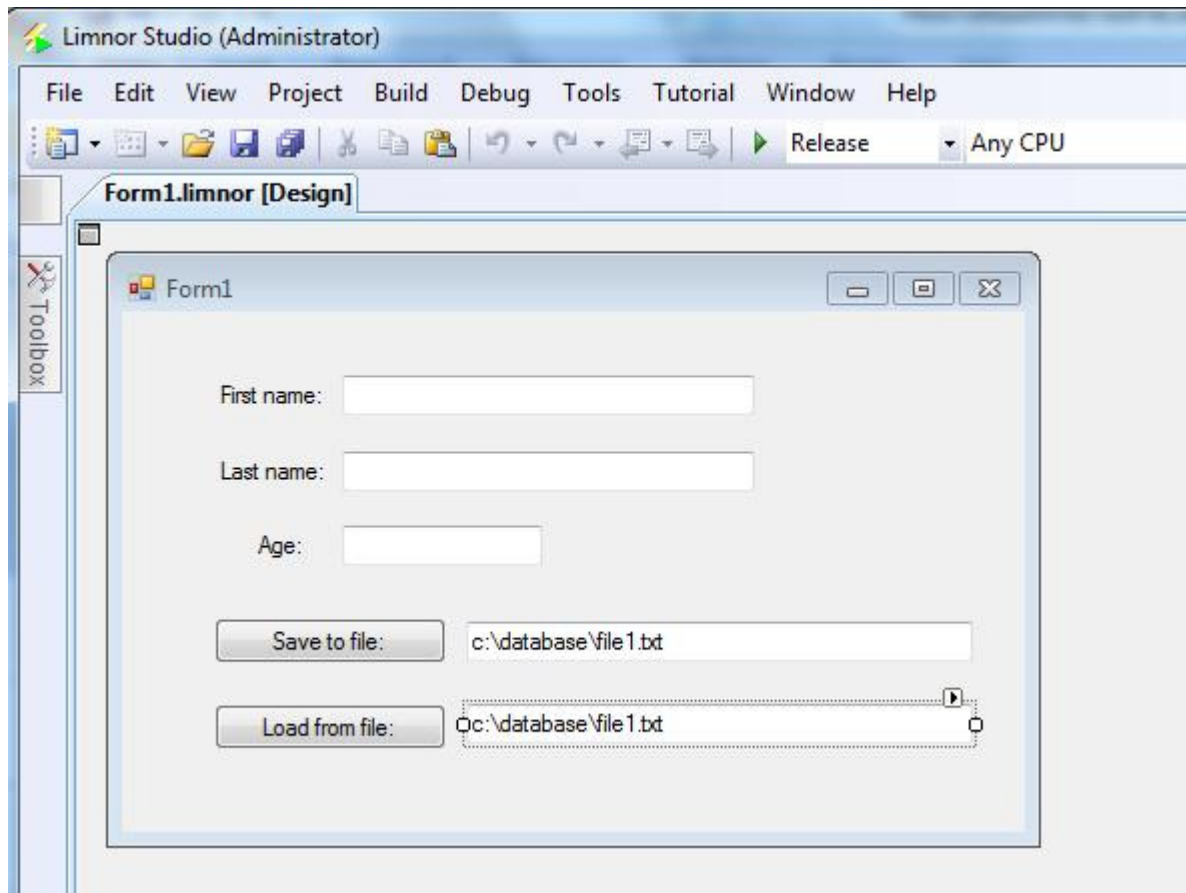
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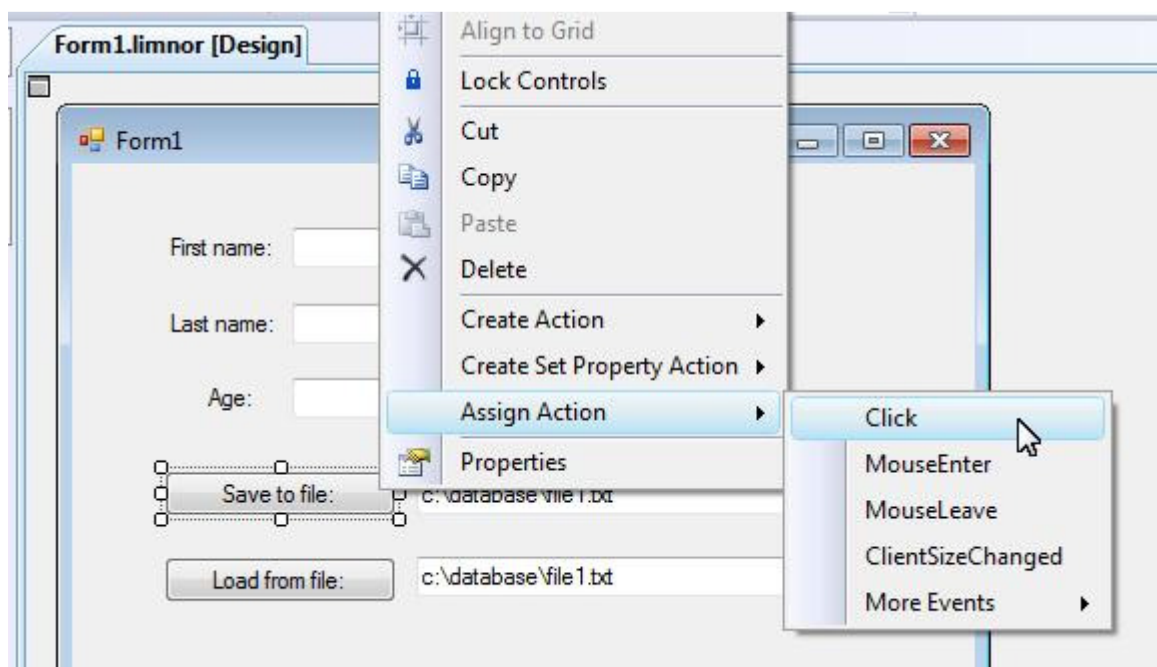
## Use StreamWriter

Suppose we want to write the data collected via a form into a text file:

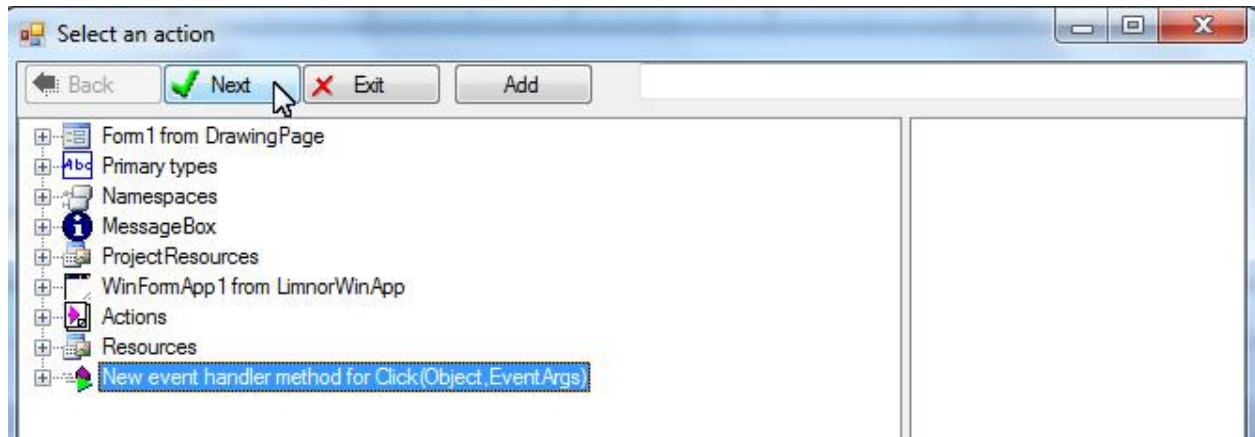


## Create button click event handler

Right-click button “Save to file”; choose “Assign Action”; choose “Click” event:



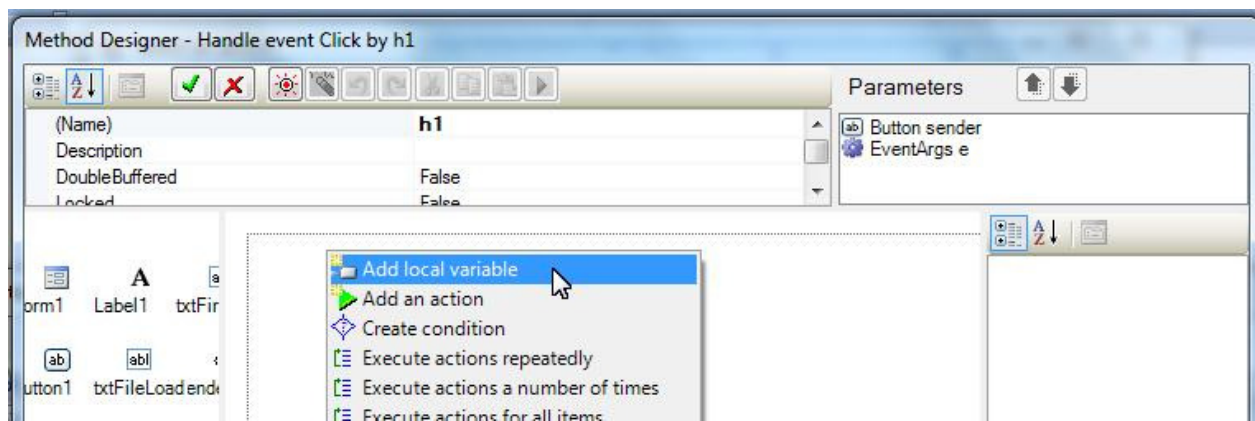
Select “New event handler method for Click”



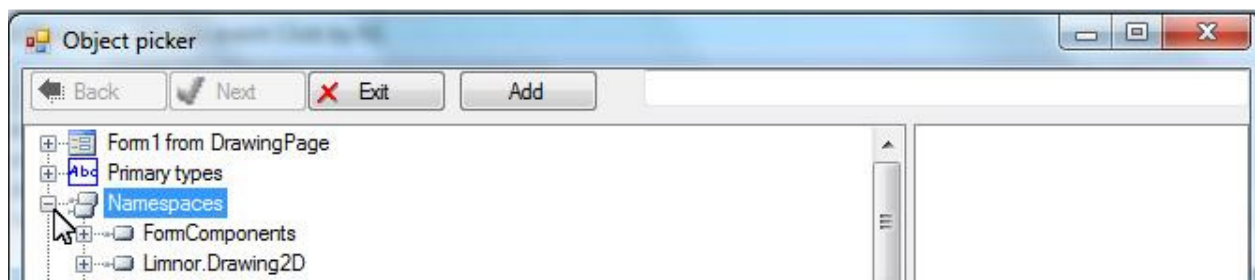
The Method Designer appears.

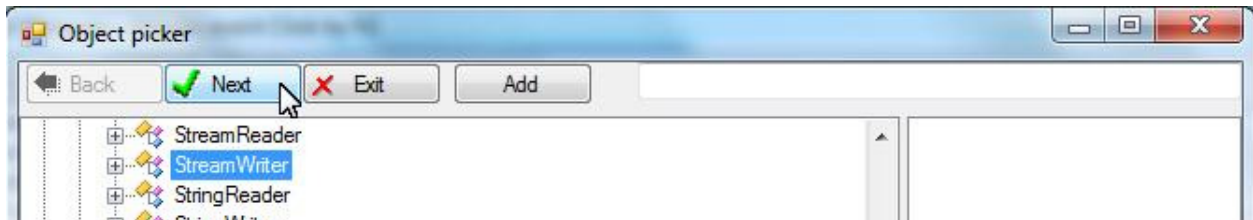
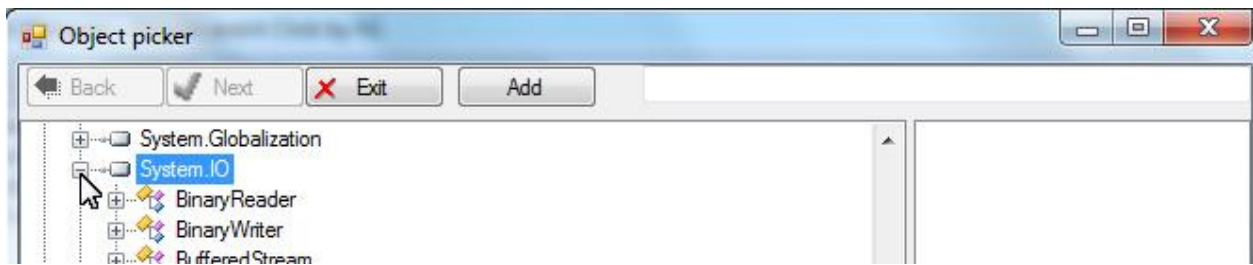
## Create StreamWriter

Because we want to use StreamWriter, let's create a local variable for StreamWriter:

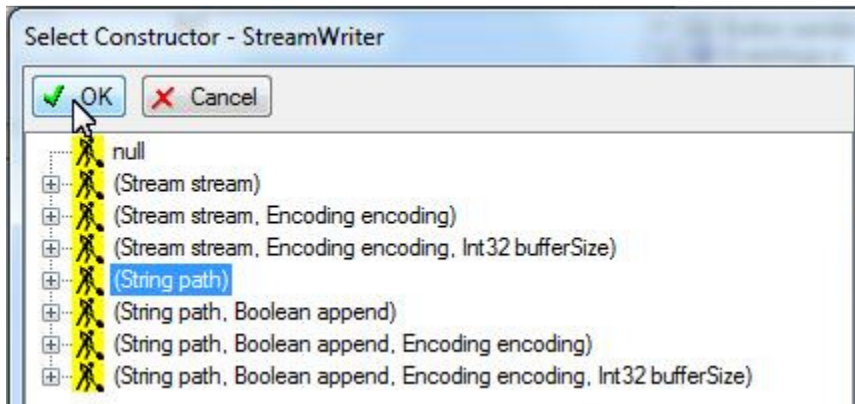


Select the StreamWriter from the System.IO namespace:

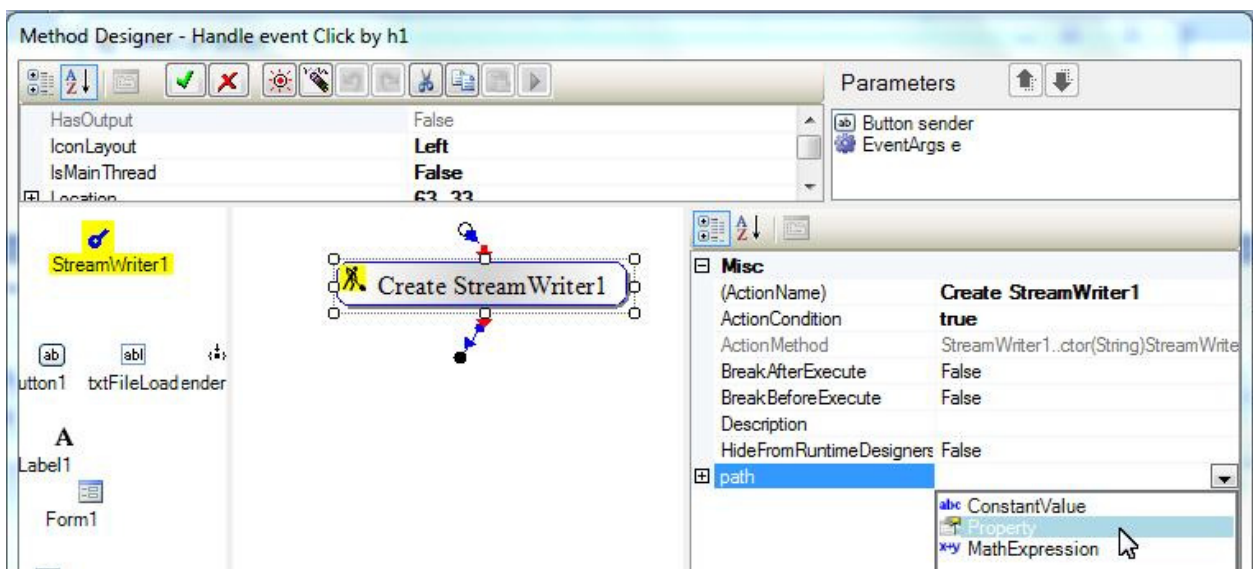




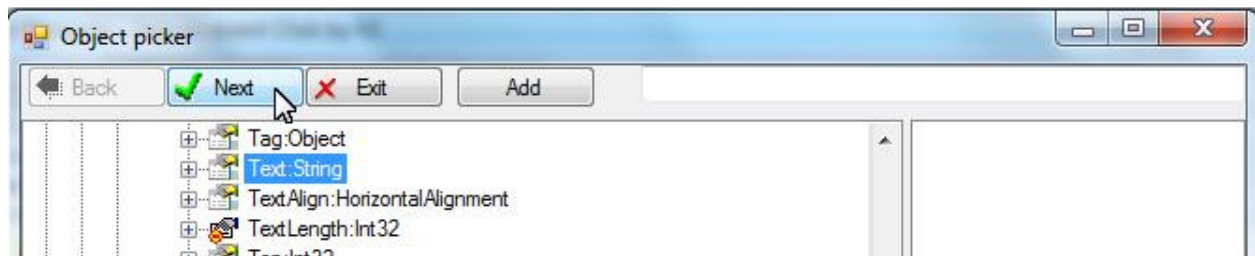
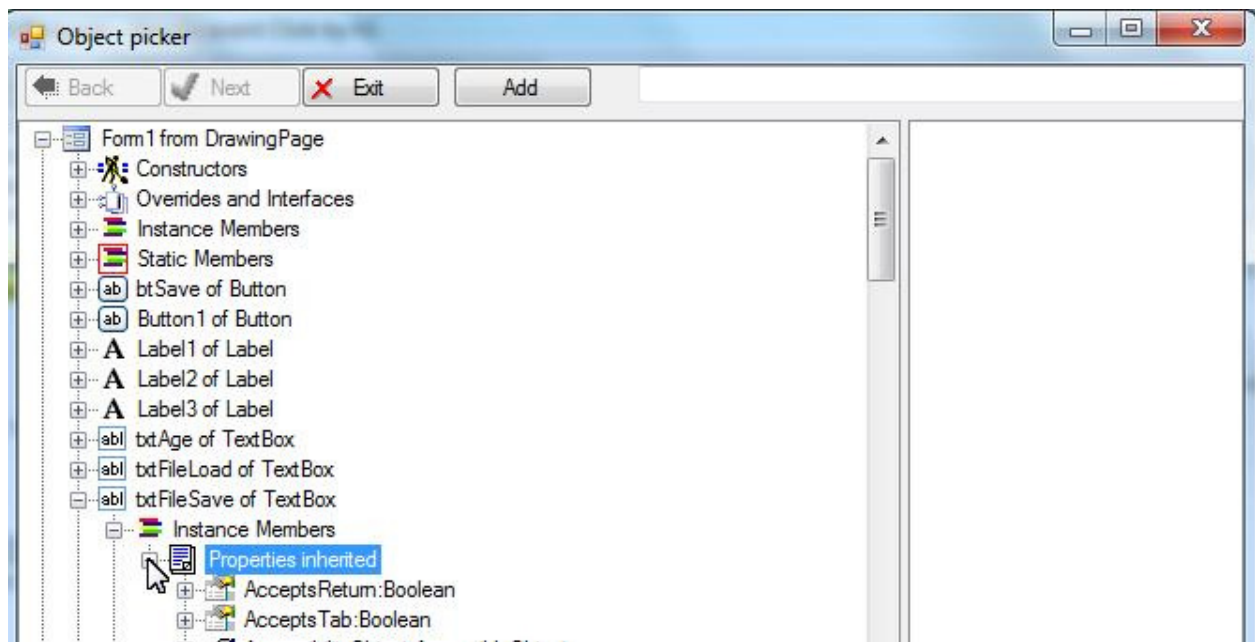
There are several ways of creating a StreamWriter. We select the one to create it from a file path:



A StreamWriter named StreamWriter1 is created via an action named CreateStreamWriter1. We select "Property" for the "path" of the action:



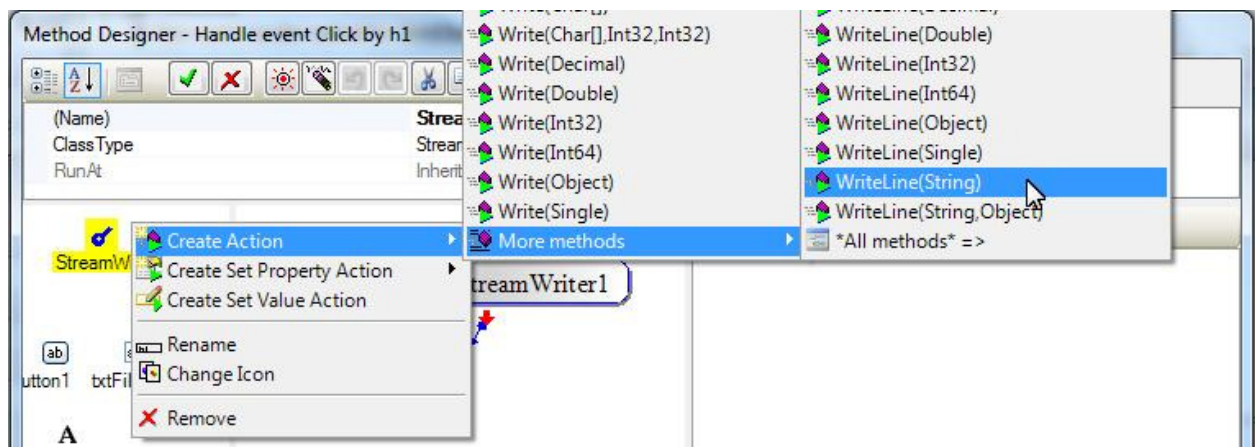
Select the Text property of the text box for the file path:



## Write to file

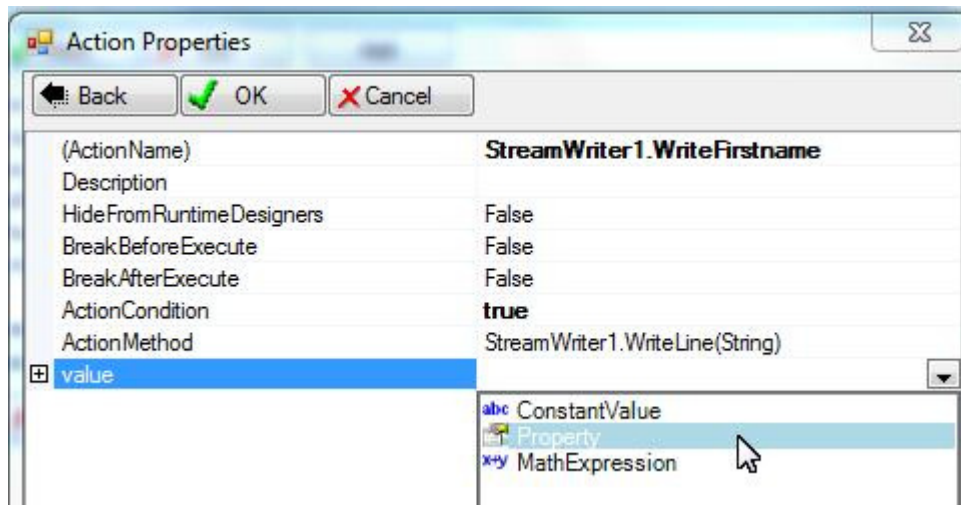
We may create a WriteLine action to write one piece of data to the text file as one line of text.

Right-click StreamWriter; choose "Create Action"; choose "WriteLine(String)":

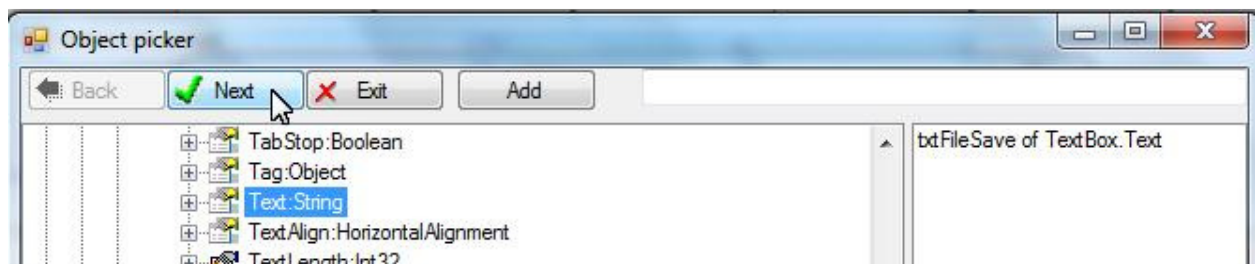
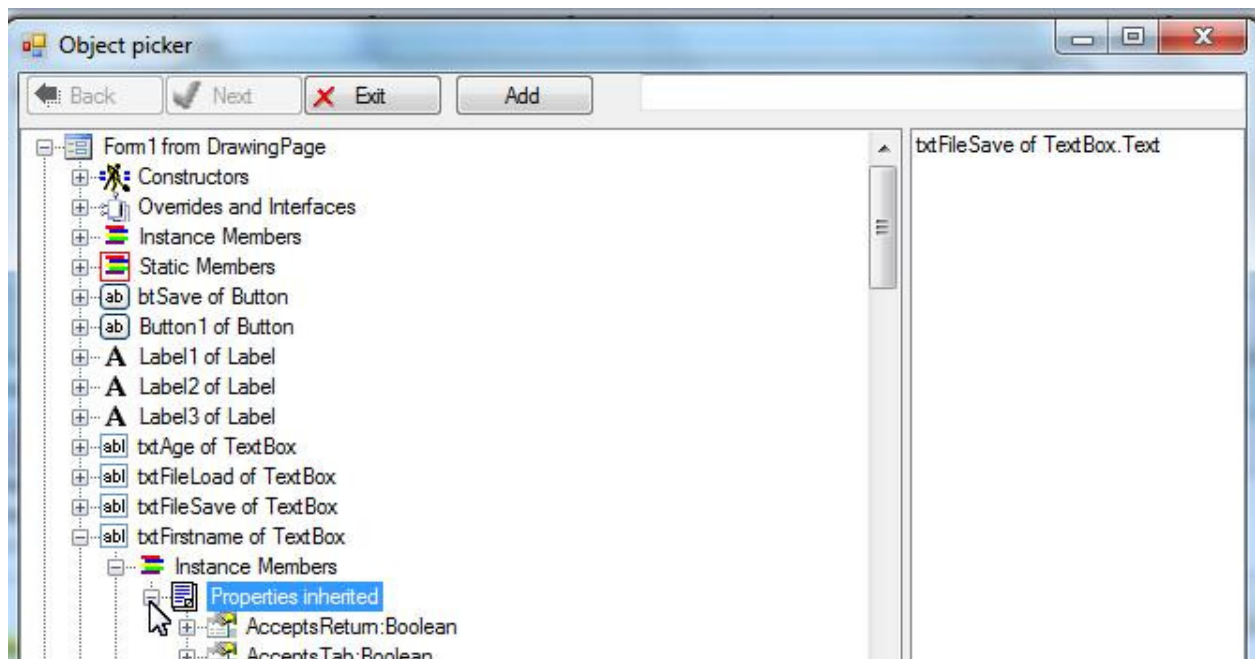




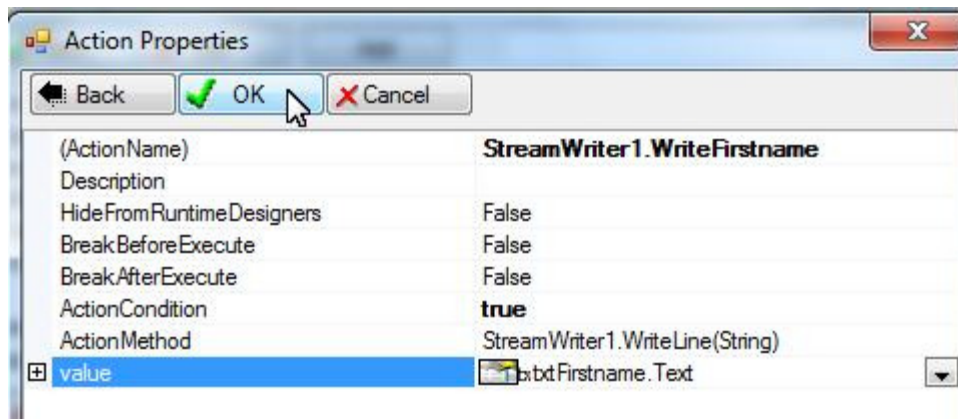
Rename the action to be StreamWriter1.WriteFirstname (you can name the action anything you want).  
Select "Property" for the "value" of the action:



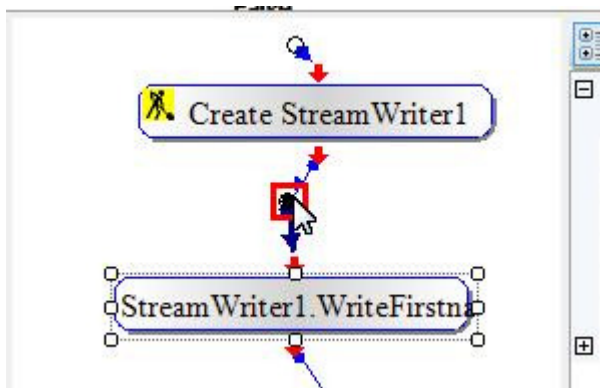
Select the Text property of the text box for the first name:



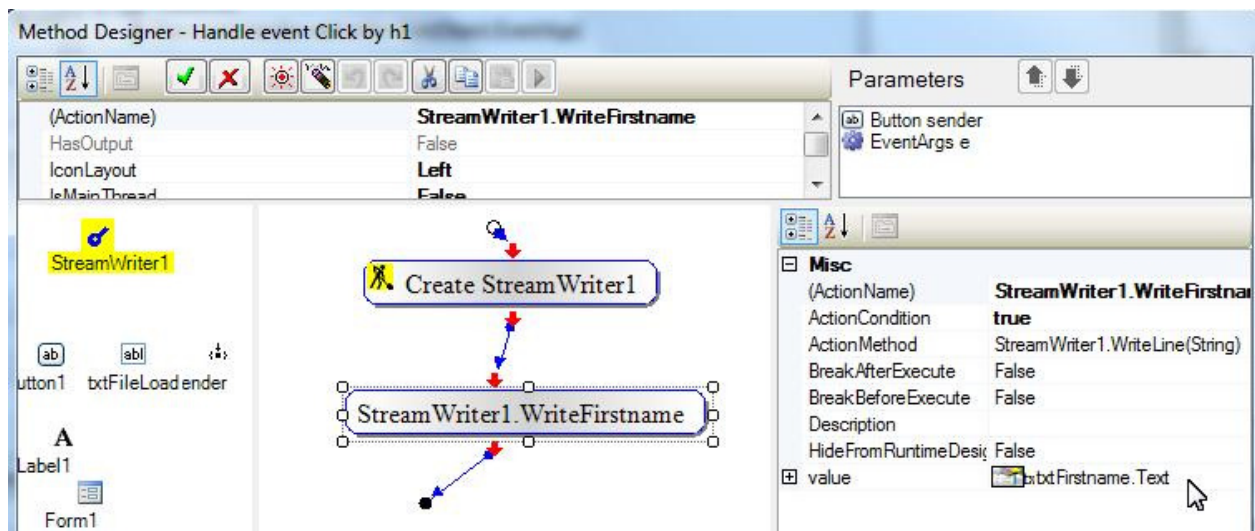
Click OK to finish creating this action:



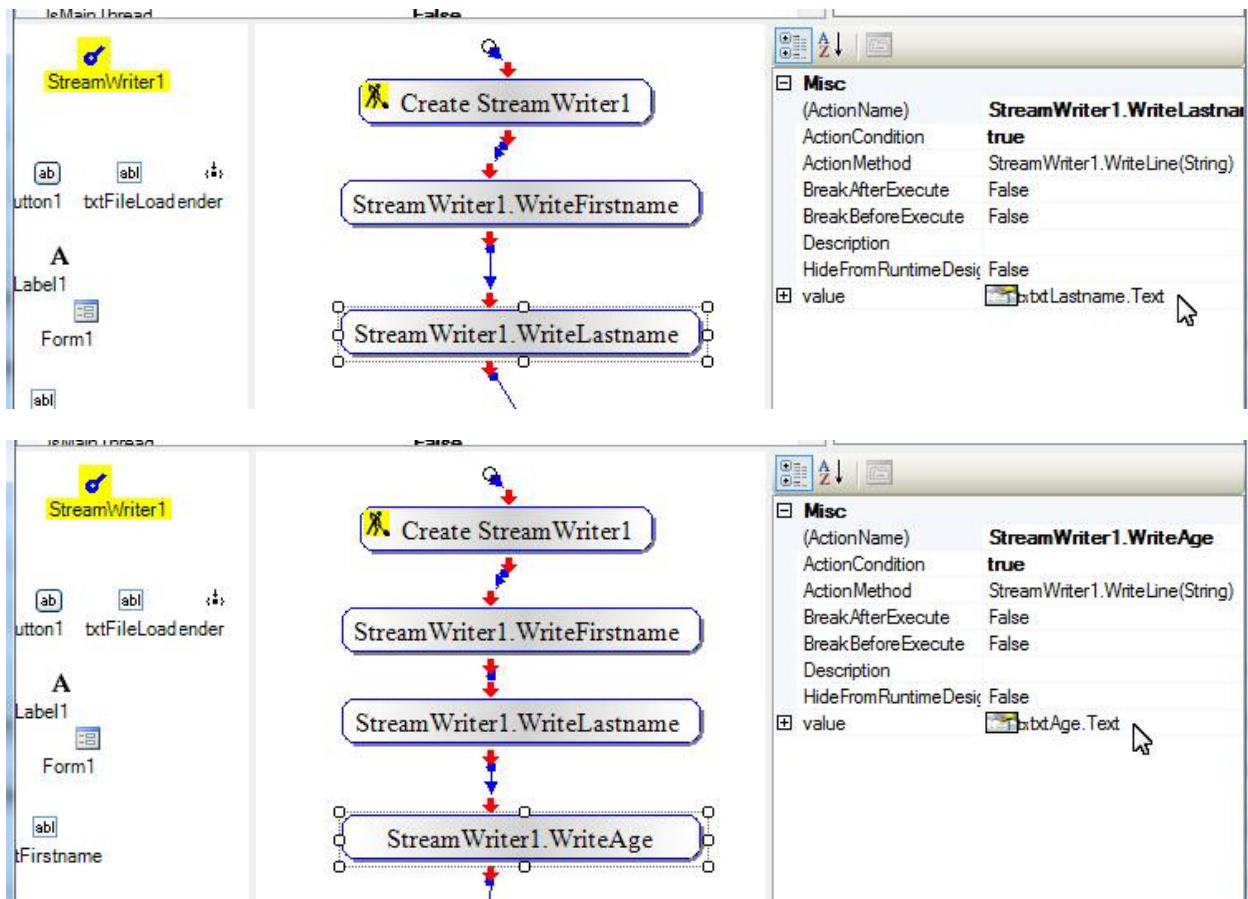
Link this action to the last action:



So far, we created an action to create a StreamWriter using the file name we specified, and an action to write the first name to the file:

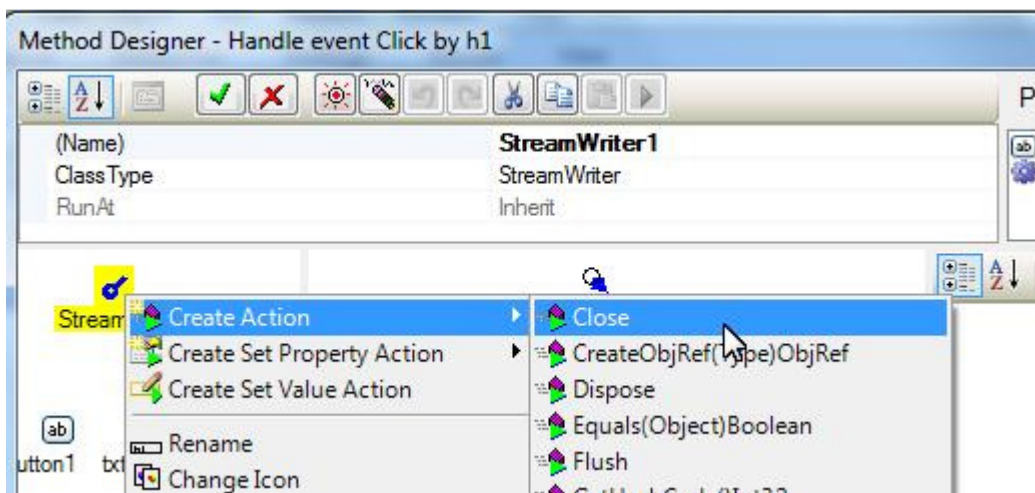


In the same way of creating action StreamWriter1.WriteLine, we may create two more actions to write last name and age to the text file:



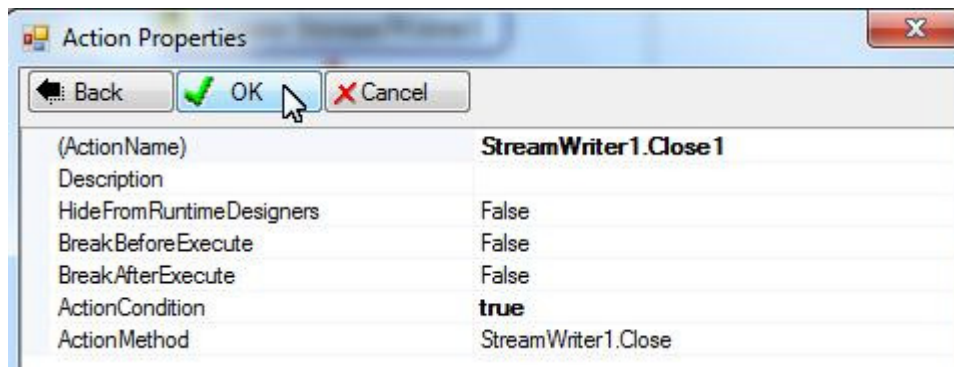
## Close file

On writing all the contents to the file, we need to create an action to close the file. Right-click **StreamWriter1**; choose "Create Action"; choose "Close":

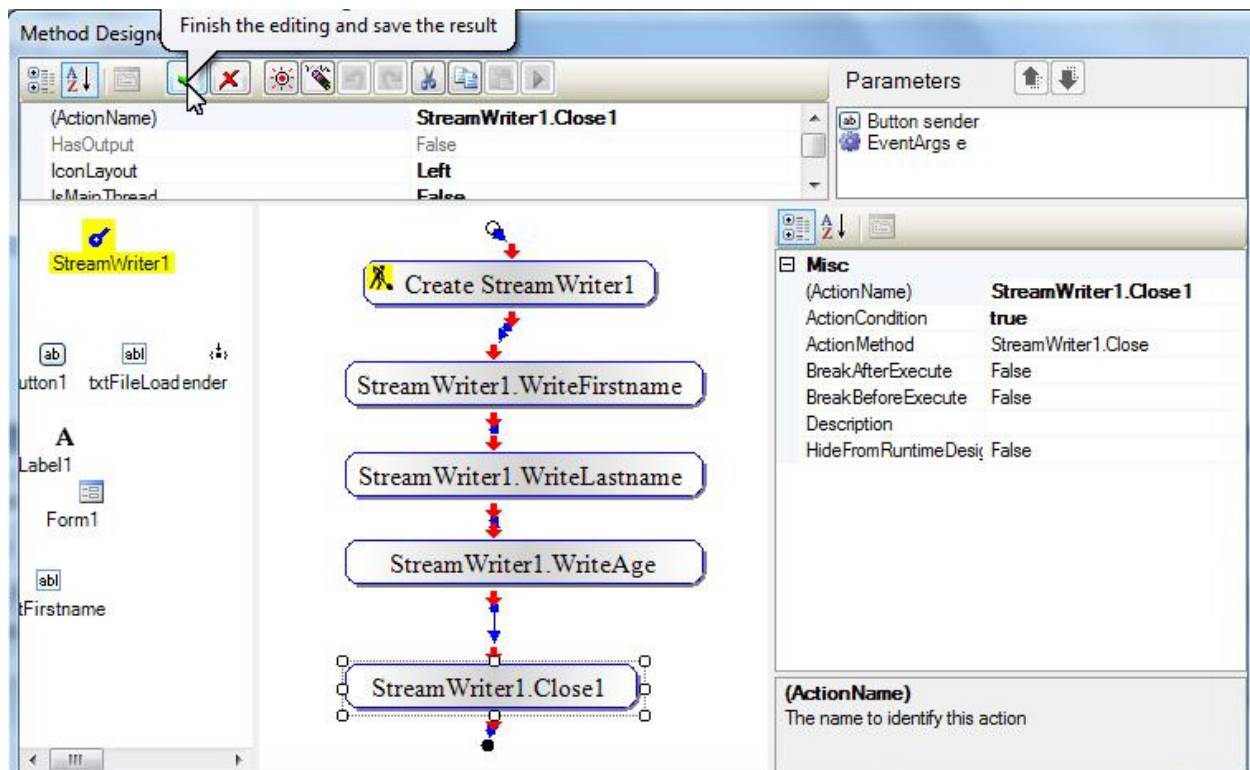


Click OK:



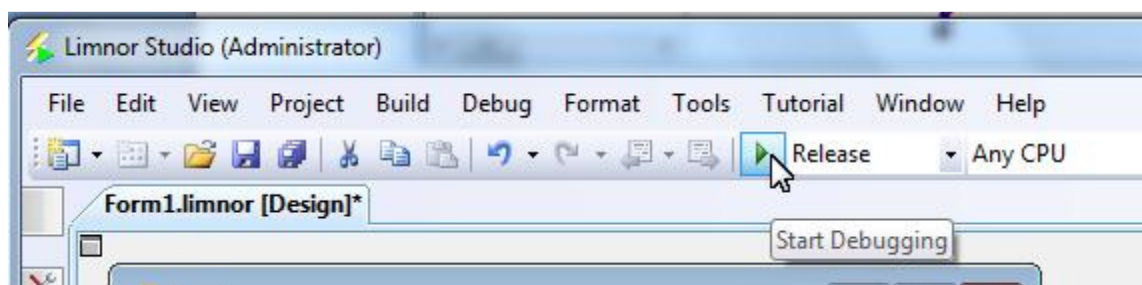


Link the new action to the last action. We are done.



## Test file writing

We may test our software. Click Run button to run the application:



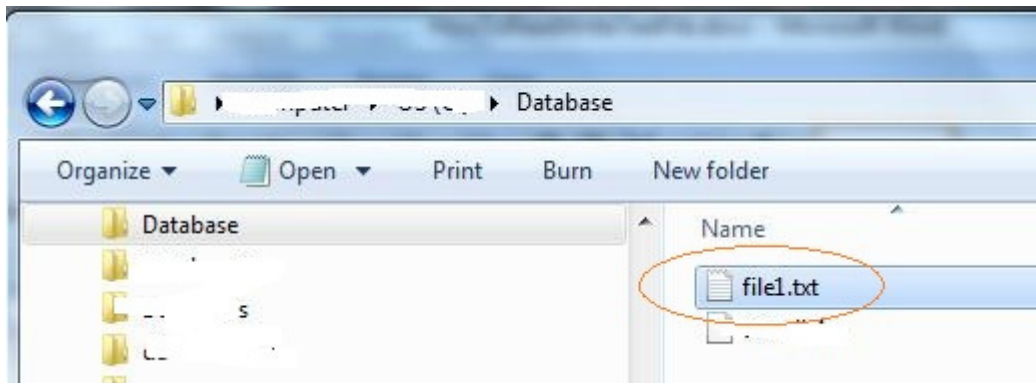
The form appears:

A screenshot of a Windows application window titled "Form1". The window contains three text input fields labeled "First name:", "Last name:", and "Age:". All three fields are currently empty. Below the fields are two buttons: "Save to file:" and "Load from file:". To the right of each button is a text box containing the file path "c:\database\file1.txt".

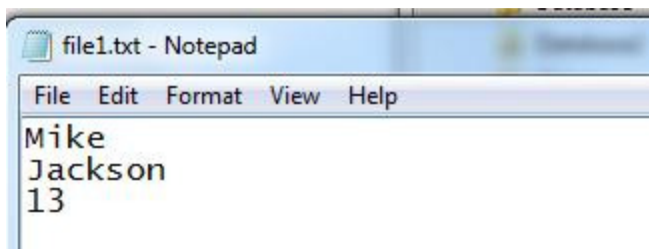
Enter some data and click "Save to file":

A screenshot of the same "Form1" window after data has been entered. The "First name:" field now contains "Mike", the "Last name:" field contains "Jackson", and the "Age:" field contains "13". The "Save to file:" button is highlighted in blue, and a mouse cursor is pointing at it. The "Load from file:" button remains grey. The file paths in the adjacent text boxes are still "c:\database\file1.txt".

We can see that the file is created:



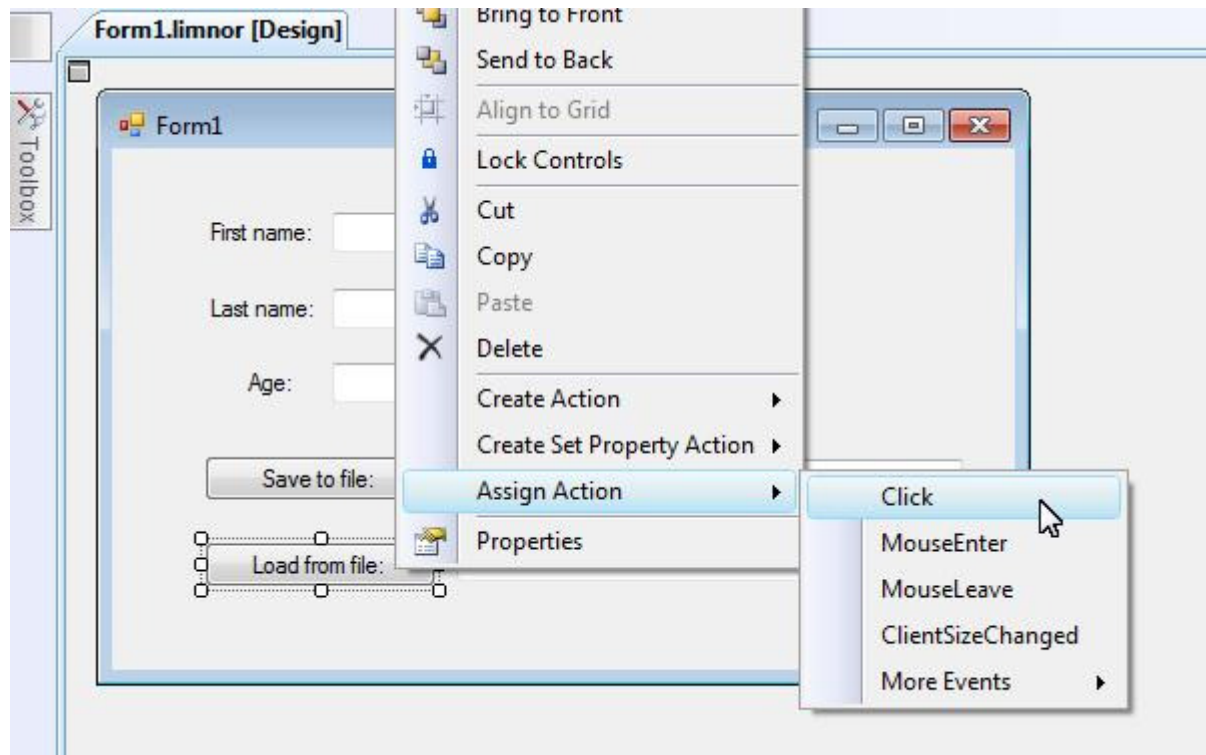
Open the file in the Notepad. We will see the data written to it by our program:



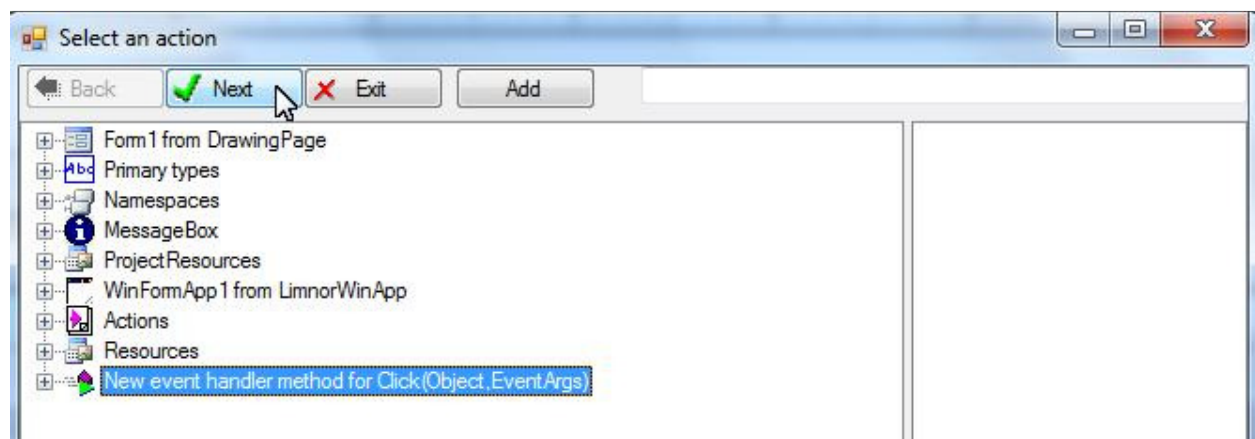
## Use StreamReader

### Create button click event handler

Right-click button "Load from file"; choose "Assign Action"; choose "Click" event:



Select "New event handler method for Click"

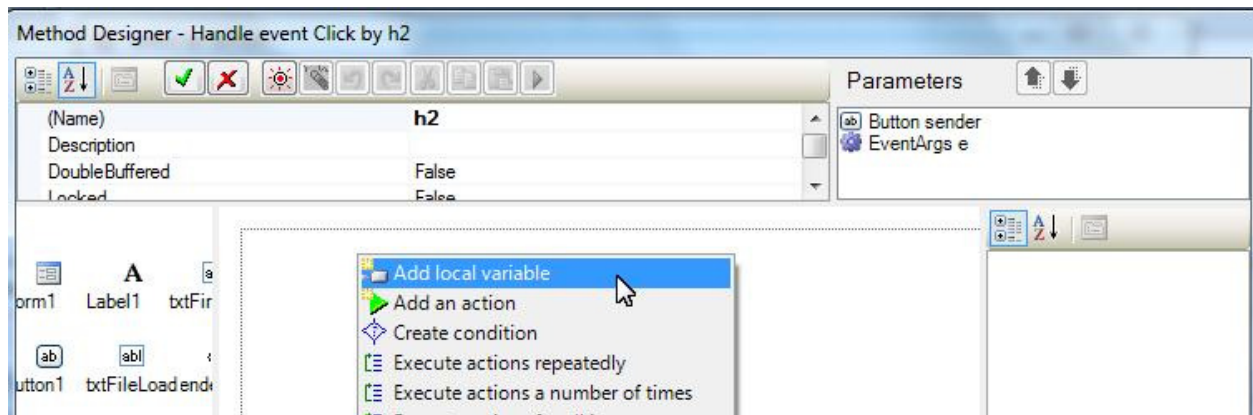


The Method Designer appears.

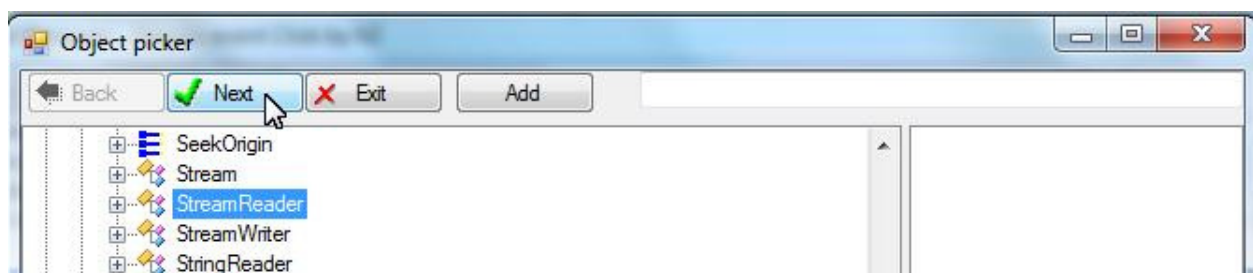
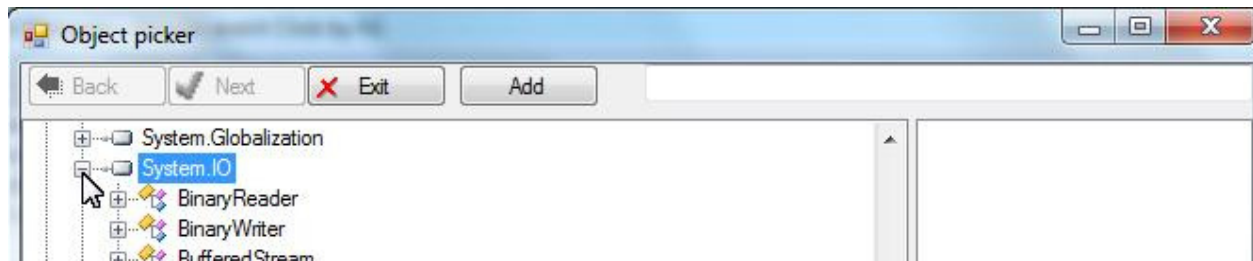
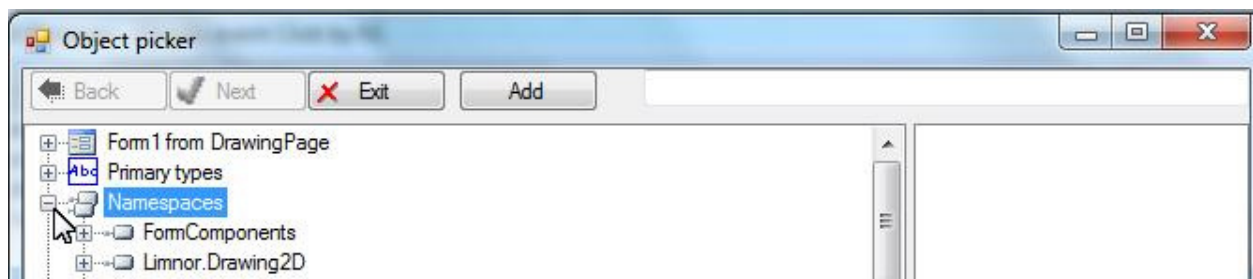
## Create StreamReader

Because we want to use StreamReader, let's create a local variable for StreamReader:

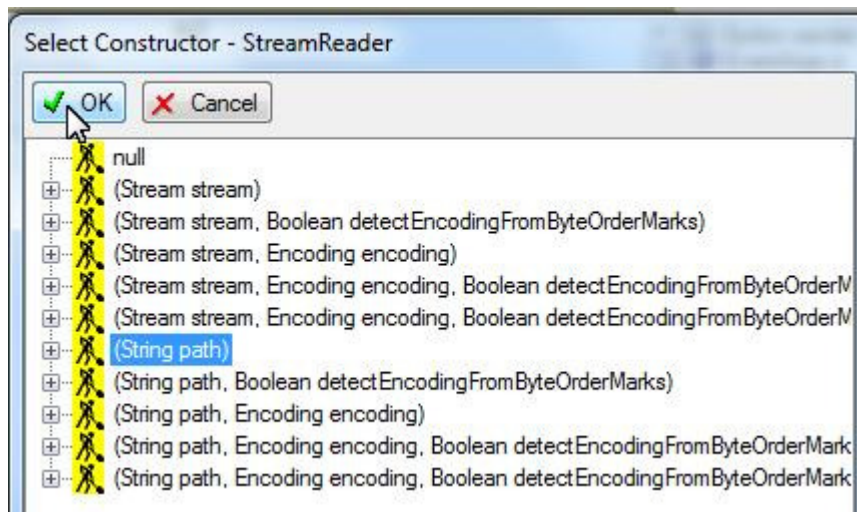




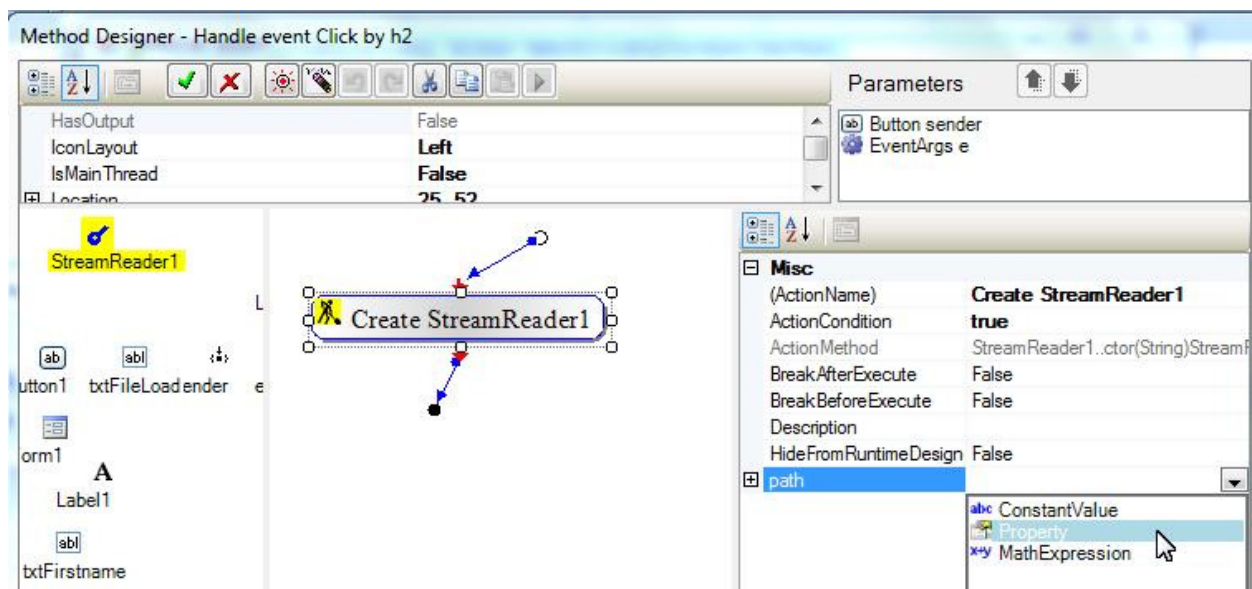
Select the StreamReader from the System.IO namespace:



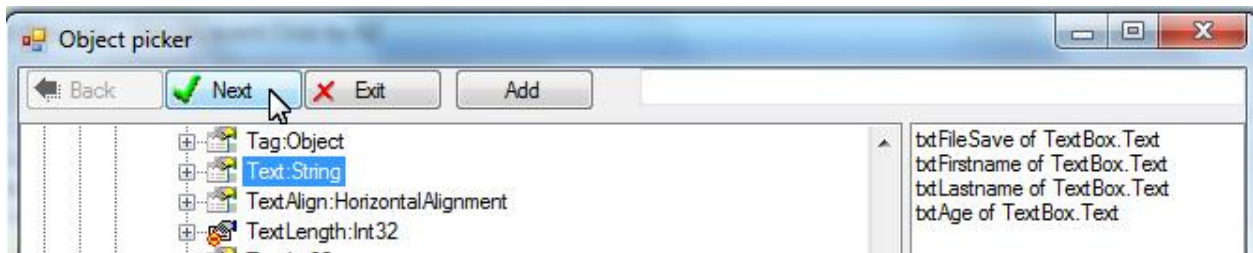
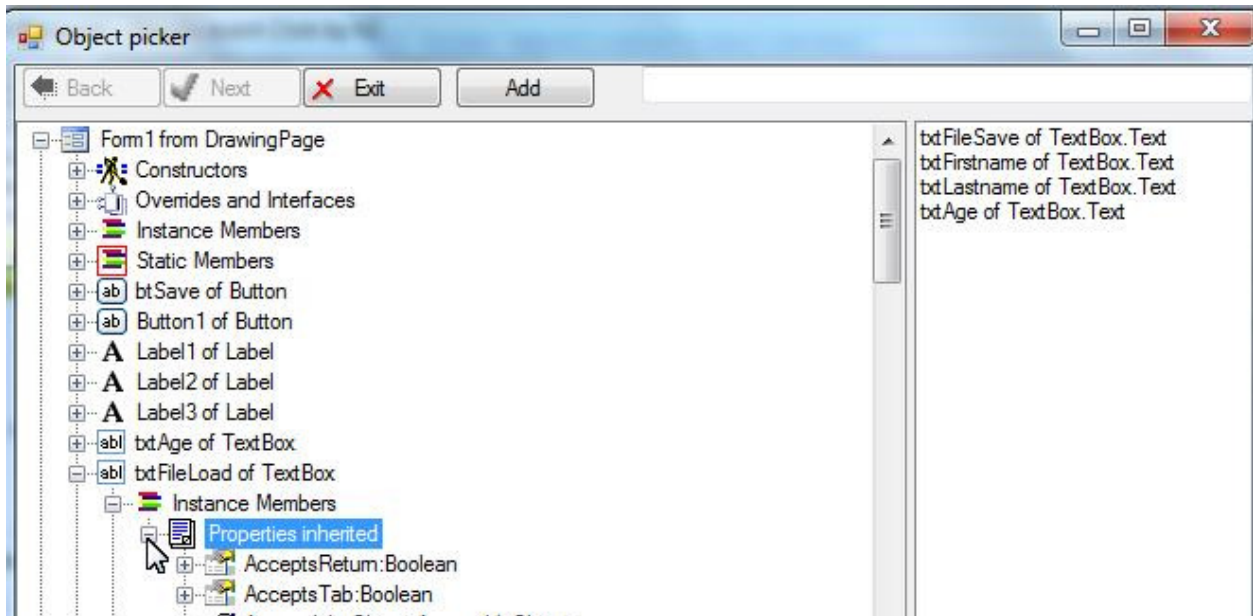
There are several ways of creating a StreamReader. We select the one to create it from a file path:



A StreamReader named StreamReader1 is created via an action named CreateStreamReader1. We select "Property" for the "path" of the action:



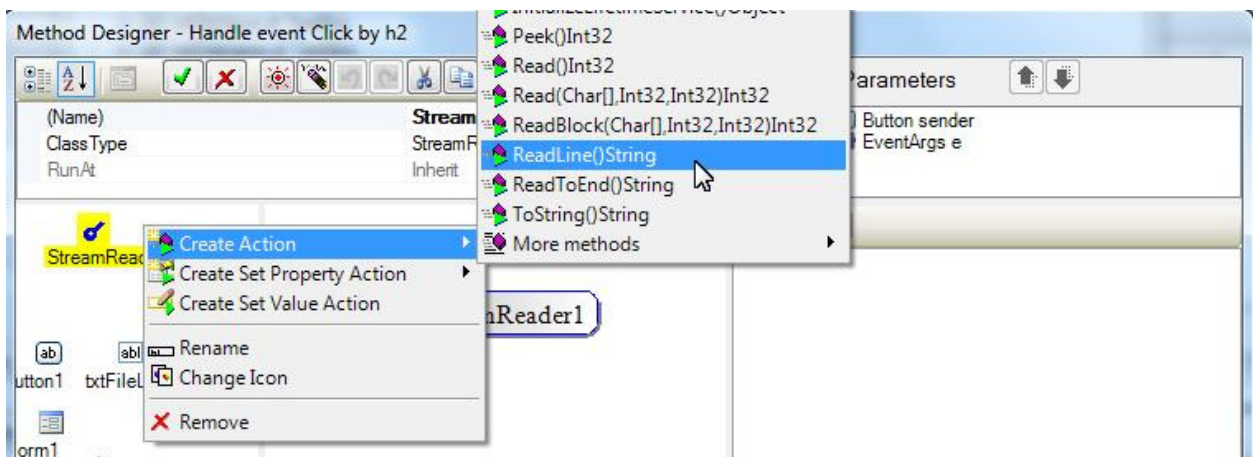
Select the Text property of the text box for the file path:



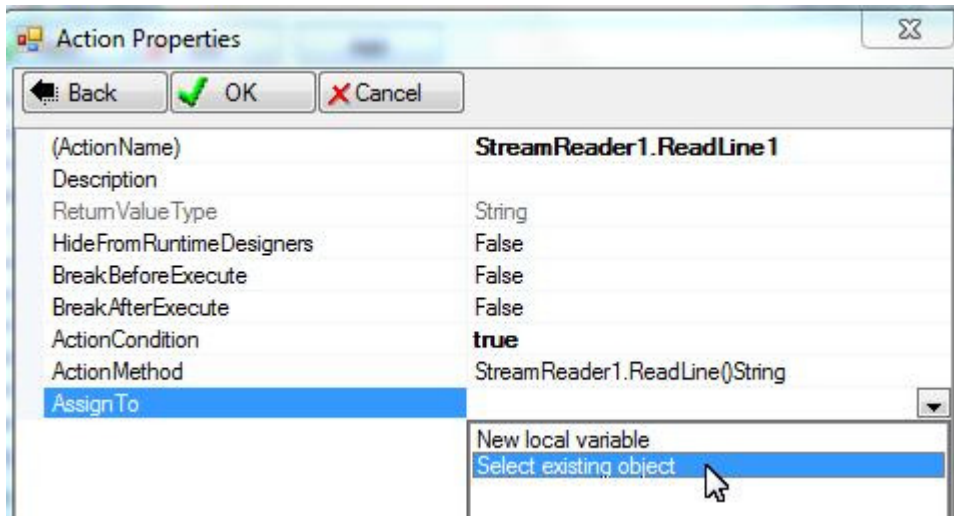
## Read from text file

We may create a ReadLine action to read one line of text from the file and pass the line of text to where we want.

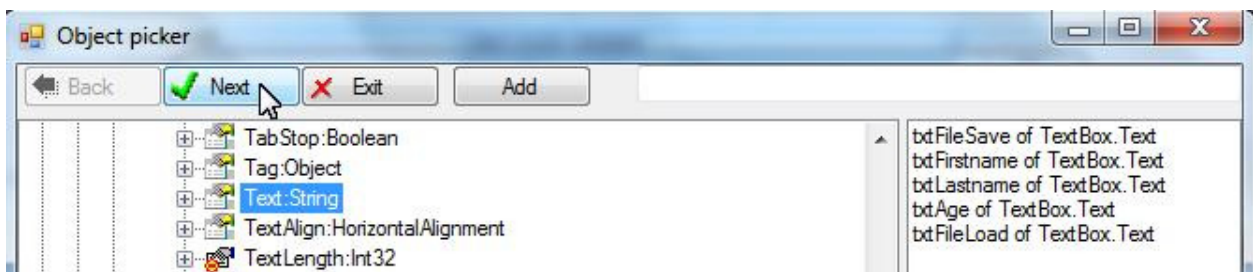
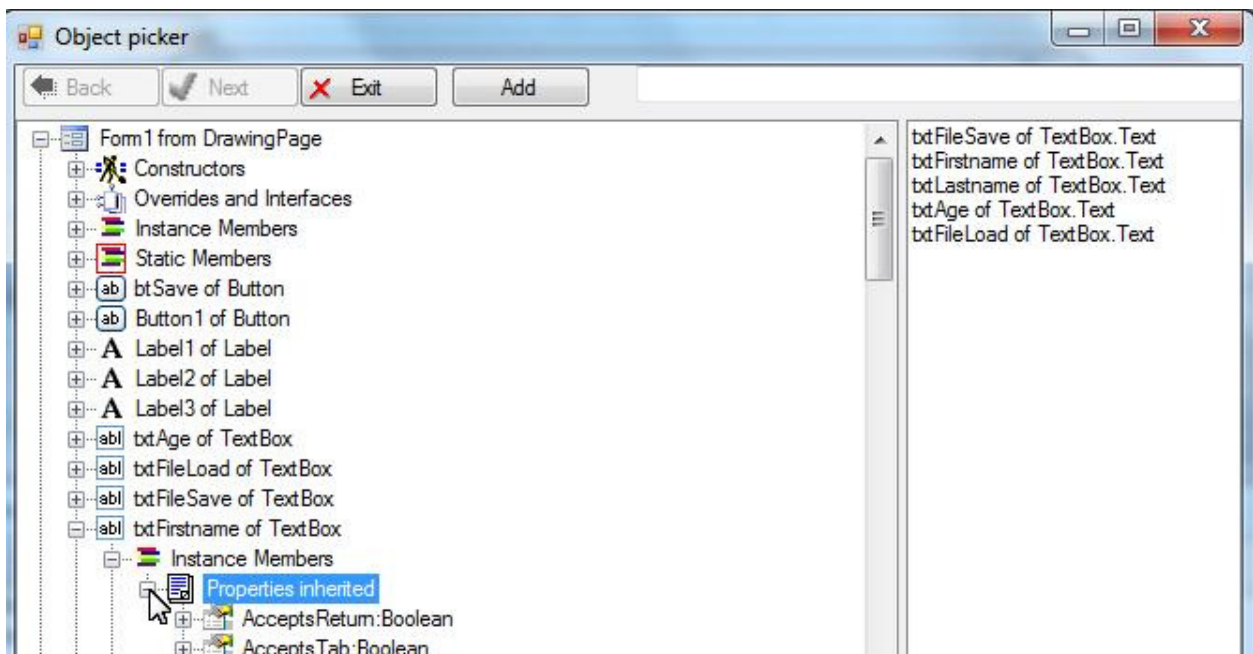
Right-click StreamReader1; choose "Create Action"; choose "ReadLine":



"AssignTo" of the action indicates where the line of text should go. Choose "Select existing object":

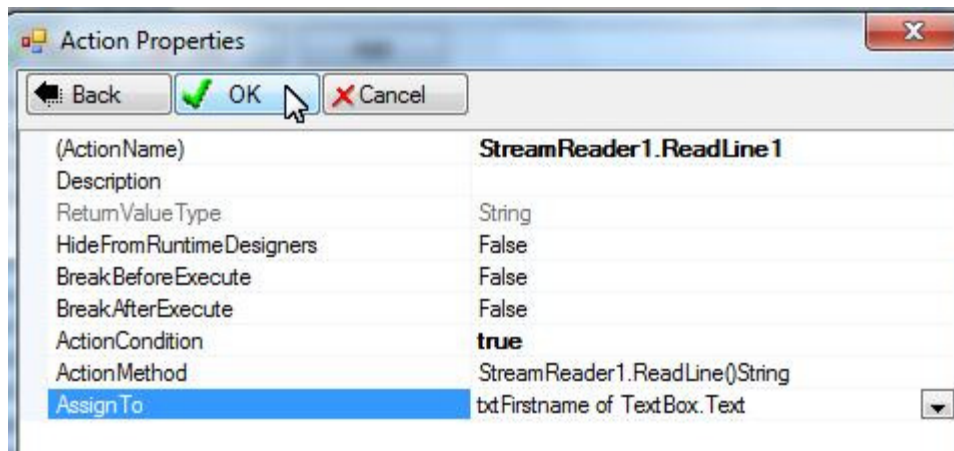


Select the Text property of the text box for the first name:

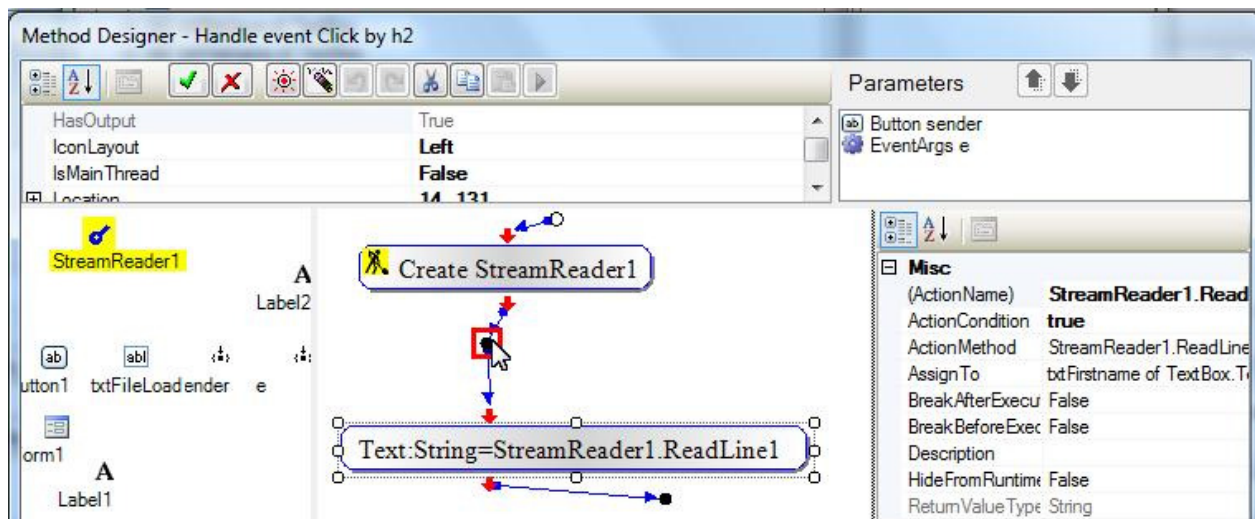


Click OK:

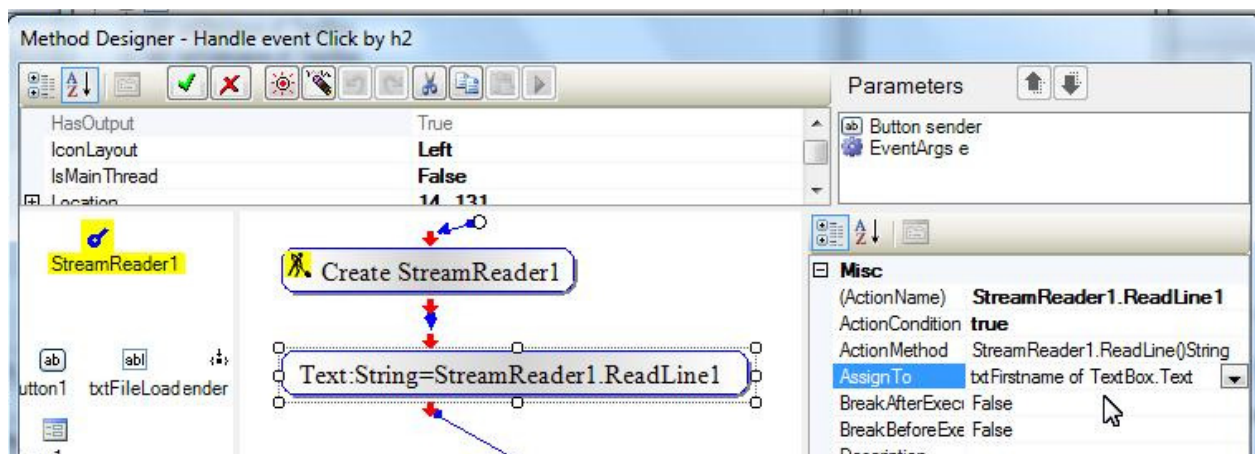




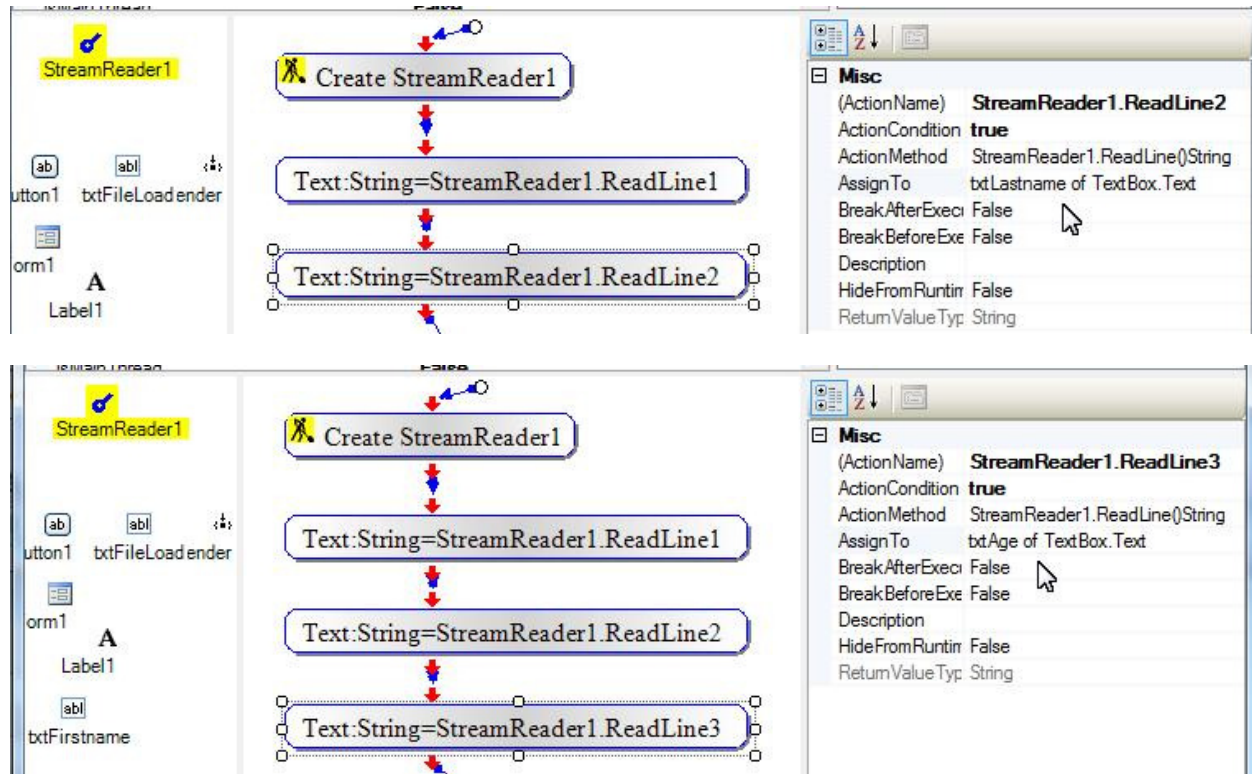
Link the action to the last action:



So far, we created a StreamReader using a file path, and created an action to read a line from the file and send the line of text to the Text property of the text box for the first name.



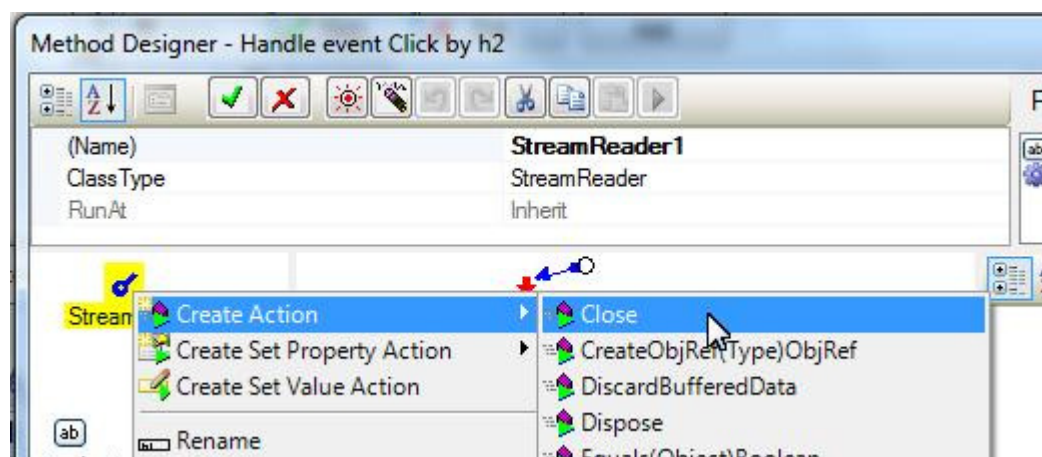
We may create two more ReadLine actions and pass the text line read from the file to the Text property of the text box for last name and for age, respectively:



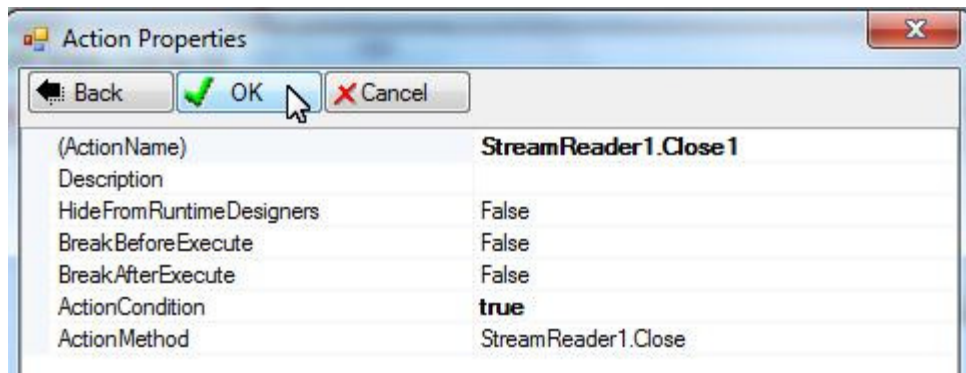
## Close file

After reading all we want, we need to create an action to close the file.

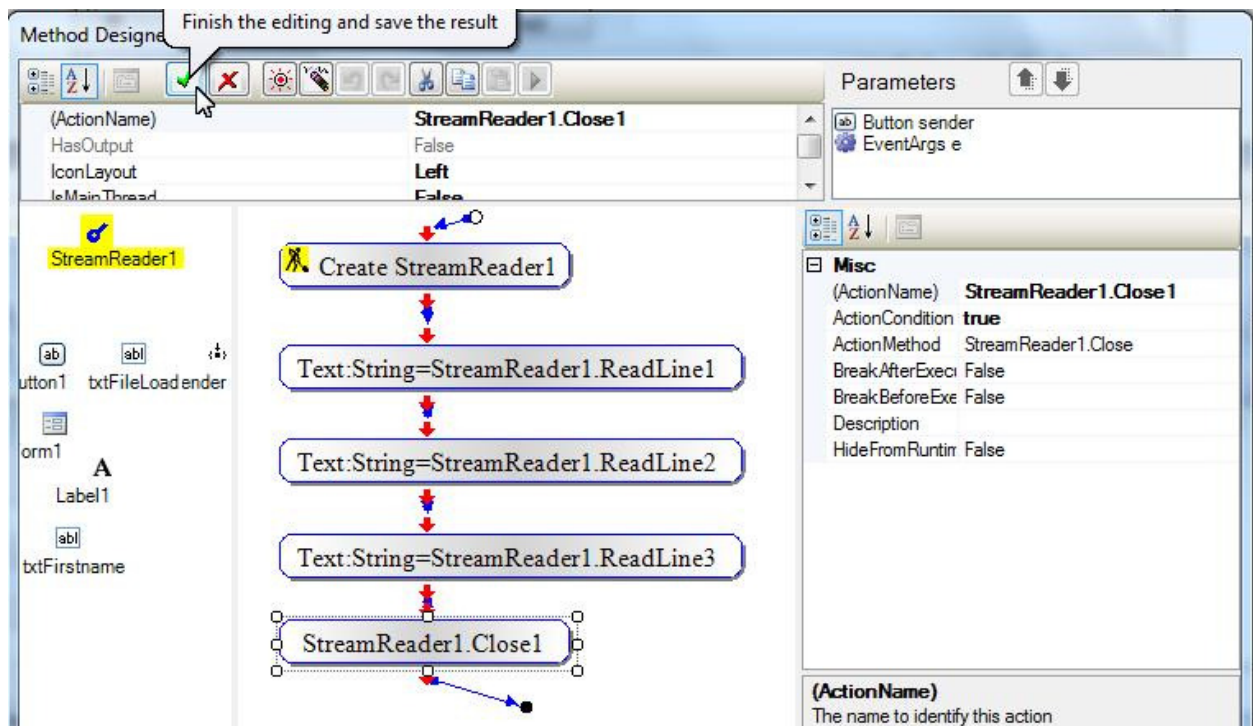
Right-click **StreamReader1**; choose "Create Action"; choose "Close":



Click OK:

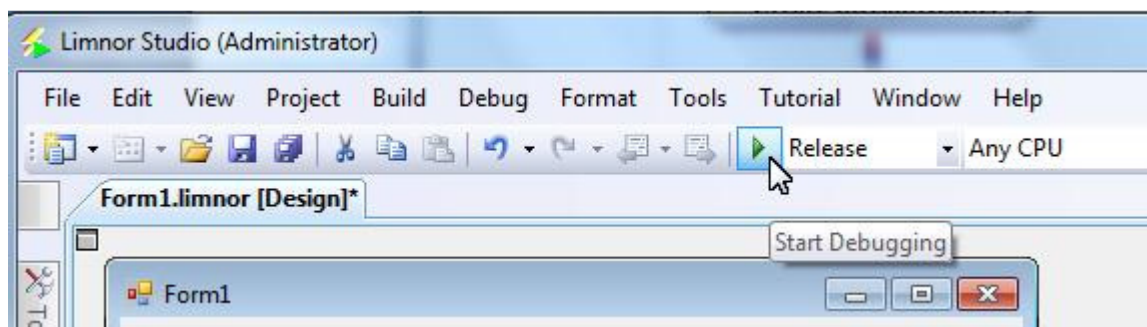


Link it to the last action. We are all done.



## Test file reading

Click the Run button to run the application:



The form appears:

A screenshot of a Windows application window titled "Form1". The window contains three text input fields labeled "First name:", "Last name:", and "Age:". Below these fields are two buttons: "Save to file:" and "Load from file:". To the right of each button is a text box containing the file path "c:\database\file1.txt".

Click "Load from file". The data appear in the form:

A screenshot of the same "Form1" window, now populated with data. The "First name:" field contains "Mike", the "Last name:" field contains "Jackson", and the "Age:" field contains "13". The "Load from file:" button is highlighted with a mouse cursor, indicating it was just clicked. The file paths next to the buttons remain "c:\database\file1.txt".

## Notes

The above samples demonstrate file reading and writing. Please be advised the following points.

- The samples only show very basic ways of reading and writing. As you can see that the StreamReader and StreamWriter have lots of properties and methods. You may check their documentations for details: <http://msdn.microsoft.com/en-us/library/system.io.streamreader.aspx> and <http://msdn.microsoft.com/en-us/library/system.io.streamwriter.aspx>



- All the objects used in the samples are made by Microsoft. Limnor Studio does not do any special handling for any of them. Using Limnor Studio, you use these objects by “Create action” and “Assign Action to events”, so that you do not have to learn a computer language. You may check files in the “source” folder under your project folder for the C# code Limnor Studio generated for you from your programming.