Adding functional code

The Visual Basic IDE automatically generates code, in the background, to incorporate the visual controls you add to your program interface. Additional code can be added manually, using the IDE’s integral Code Editor, to determine how your program should respond to interface events – such as when the user clicks a button.

Using the project created on the previous page follow these steps to start using the Visual Basic Code Editor now:

1. Double-click on the Button control you have added to the default Form in the Designer window. A new tabbed text window opens in the IDE – this is the Code Editor window.

2. The cursor is automatically placed at precisely the right point in the code at which to add an instruction to determine what the program should do when this button is clicked. Type the instruction `MsgBox("Hello World!")` so the Code Editor looks exactly like this:

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**Hot tip**

Switch easily between the Code Editor and Form Designer (or Start Page) by clicking on the appropriate window tab.
Click the Start Debugging button, or press F5, to run the application and test the code you have just written to handle the event that occurs when the button is clicked.

Push the OK button to close the dialog box, then click the “X” button on the Form window, or click the Stop Debugging button on the Menu Bar, to stop the program.

Each time the button in this application is pressed the program reads the line of code you added manually to produce a dialog box containing the specified message. The action of pressing the button creates a “Click” event that refers to the associated “event-handler” section of code you added to see how to respond.

In fact most Windows software works by responding to events in this way. For instance, when you press a key in a word processor a character appears in the document – the “KeyPress” event calls upon its event-handler code to update the text in response.

The process of providing intelligent responses to events in your programs is the very cornerstone of creating Windows applications with Visual Basic.