

# Dive Into® Visual Studio Express 2012 for Windows Desktop

# 2

*Seeing is believing.*

—Proverb

*Form ever follows function.*

—Louis Henri Sullivan




## Objectives

In this chapter you'll:

- Learn the basics of the Visual Studio Express 2012 for Windows Desktop Integrated Development Environment (IDE) for writing, running and debugging your apps.
- Use Visual Studio's help features.
- Learn key commands contained in the IDE's menus and toolbars.
- Understand the purpose of the various kinds of windows in the Visual Studio Express 2012 for Windows Desktop IDE.
- Understand what visual app development is and how it simplifies and speeds app development.
- Use visual app development to create, compile and execute a simple Visual C# app that displays text and an image.

## 2 Chapter 2 Dive Into® Visual Studio Express 2012 for Windows Desktop

### Self-Review Exercises

- 2.1** Fill in the blanks in each of the following statements:
- The technique of \_\_\_\_\_ allows you to create GUIs without writing any code.  
ANS: visual programming.
  - A(n) \_\_\_\_\_ is a group of one or more projects that collectively form a Visual C# app.  
ANS: solution.
  - The \_\_\_\_\_ feature hides a window in the IDE.  
ANS: auto-hide.
  - A(n) \_\_\_\_\_ appears when the mouse pointer hovers over an icon.  
ANS: tool tip.
  - The \_\_\_\_\_ window allows you to browse solution files.  
ANS: **Solution Explorer**
  - The properties in the **Properties** window can be sorted \_\_\_\_\_ or \_\_\_\_\_.  
ANS: alphabetically, categorically.
  - A Form's \_\_\_\_\_ property specifies the text displayed in the Form's title bar.  
ANS: **Text**.
  - The \_\_\_\_\_ contains the controls that you can add to a Form.  
ANS: **Toolbox**.
  - \_\_\_\_\_ displays relevant help articles, based on the current context.  
ANS: context-sensitive help.
  - The \_\_\_\_\_ property specifies how text is aligned within a `Label`'s boundaries.  
ANS: `TextAlign`.
- 2.2** State whether each of the following is *true* or *false*. If *false*, explain why.
-  toggles auto-hide for a window.  
ANS: False. The pin icon () toggles auto-hide.  closes a window.
  - The toolbar icons represent various menu commands.  
ANS: True.
  - The toolbar contains icons that represent controls you can drag onto a Form.  
ANS: False. The **Toolbox** contains icons that represent such controls.
  - Both Forms and Labels have a title bar.  
ANS: False. Forms have a title bar but Labels do not (although they do have Label text).
  - Control properties can be modified only by writing code.  
ANS: False. Control properties can be modified using the **Properties** window.
  - PictureBoxes typically display images.  
ANS: True.
  - Visual C# files use the file extension `.csharp`.  
ANS: False. Visual C# files use the file extension `.cs`.
  - A Form's background color is set using the `BackColor` property.  
ANS: True.

### Exercises

- 2.3** Fill in the blanks in each of the following statements:
- When an ellipsis button is clicked, a(n) \_\_\_\_\_ is displayed.  
ANS: dialog. Dialogs are windows that facilitate user-computer communication.
  - Using \_\_\_\_\_ help immediately displays a relevant help article.  
ANS: context-sensitive help/
  - GUI is an acronym for \_\_\_\_\_.  
ANS: graphical user interface.

d) The \_\_\_\_\_ property specifies which image a `PictureBox` displays.

ANS: `Image`.

e) The \_\_\_\_\_ menu contains commands for arranging and displaying windows.

ANS: `Window`.

**2.4** State whether each of the following is *true* or *false*. If *false*, explain why.

a) You can add a control to a `Form` by double clicking its control icon in the `Toolbox`.

ANS: True.

b) The `Form`, `Label` and `PictureBox` have identical properties.

ANS: False. Each type of control has a different set of properties, although controls can have common properties.

c) If your machine is connected to the Internet, you can browse websites from the Visual Studio IDE.

ANS: True.

d) Visual C# app developers usually create complex apps without writing any code.

ANS: False. C# programming usually involves a combination of writing a portion of the program code and having Visual Studio generate the remaining code.

e) Sizing handles are visible during execution.

ANS: False. Sizing handles are present only in `Design` view when a `Form` or control is selected.

**2.5** Some features that appear throughout Visual Studio perform similar actions in different contexts. Explain and give examples of how the ellipsis buttons, down-arrow buttons and tool tips act in this manner. Why do you think the Visual Studio IDE was designed this way?

ANS: An ellipsis button indicates that a dialog will be displayed when the button is clicked. The down-arrow button indicates that there are more options, both for toolbar icons and for items in the `Properties` window. Moving the mouse pointer over most icons displays the icon's name as a tool tip. These features make the Visual Studio IDE easier to learn and use.

**2.6** Briefly describe each of the following terms:

a) toolbar

ANS: A toolbar contains icons that, when clicked, execute a command.

b) menu bar

ANS: A menu bar contains menus, which are groups of related commands.

c) `Toolbox`

ANS: The `Toolbox` contains controls used to customize forms.

d) control

ANS: A control is a component, such as a `PictureBox` or `Label`. Controls are added to a `Form`.

e) `Form`

ANS: A `Form` represents the Windows Forms application that you are creating. The `Form` and controls collectively represent the program's GUI.

f) solution

ANS: A solution is a group of projects.

*Note Regarding Exercises 2.7–2.11*

Solutions for these exercises are provided in the `sol_ch02` folder.