

Dive Into® Visual Studio Express 2012 for Windows Desktop

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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.

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Self-Review Exercises

- 2.1** Fill in the blanks in each of the following statements:
- a) The technique of _____ allows you to create GUIs without writing any code.
ANS: visual programming.
 - b) A(n) _____ is a group of one or more projects that collectively form a Visual C# app.
ANS: solution.
 - c) The _____ feature hides a window in the IDE.
ANS: auto-hide.
 - d) A(n) _____ appears when the mouse pointer hovers over an icon.
ANS: tool tip.
 - e) The _____ window allows you to browse solution files.
ANS: **Solution Explorer**
 - f) The properties in the **Properties** window can be sorted _____ or _____.
ANS: alphabetically, categorically.
 - g) A Form's _____ property specifies the text displayed in the Form's title bar.
ANS: **Text**.
 - h) The _____ contains the controls that you can add to a Form.
ANS: **Toolbox**.
 - i) _____ displays relevant help articles, based on the current context.
ANS: context-sensitive help.
 - j) 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.
- a)  toggles auto-hide for a window.
ANS: False. The pin icon () toggles auto-hide.  closes a window.
 - b) The toolbar icons represent various menu commands.
ANS: True.
 - c) The toolbar contains icons that represent controls you can drag onto a Form.
ANS: False. The **Toolbox** contains icons that represent such controls.
 - d) 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).
 - e) Control properties can be modified only by writing code.
ANS: False. Control properties can be modified using the **Properties** window.
 - f) **PictureBoxes** typically display images.
ANS: True.
 - g) Visual C# files use the file extension **.csharp**.
ANS: False. Visual C# files use the file extension **.cs**.
 - h) 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:
- a) When an ellipsis button is clicked, a(n) _____ is displayed.
ANS: dialog. Dialogs are windows that facilitate user-computer communication.
 - b) Using _____ help immediately displays a relevant help article.
ANS: context-sensitive help/
 - c) 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 `so1_ch02` folder.