Dive Into® Visual Studio Express 2012 for Windows Desktop

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Seeing is believing.
—Proverb

Form ever follows function.
—Louis Henri Sullivan

Intelligence …is the faculty of making artificial objects, especially tools to make tools.
—Henri-Louis Bergson

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.

- Visual Studio's help features.

- Key commands contained in the IDE's menus and toolbars.

- The purpose of the various kinds of windows in the Visual Studio Express 2012 for Windows Desktop IDE.

- 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 Basic 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 app development.
b)   A(n) _____ is a group of one or more projects that collectively form a Visual Basic app.
ANS: solution.
c)   A(n) _____ appears when the mouse pointer hovers over an icon.
ANS: tool tip.
d)   The _____ window allows you to browse solution files.
ANS: Solution Explorer.
e)   The properties in the **Properties** window can be sorted _____ or _____.
ANS: alphabetically, categorically.
f)   A `Form`'s _____ property specifies the text displayed in the `Form`'s title bar.
ANS: `Text`.
g)   The _____ contains the controls that you can add to a `Form`.
ANS: `Toolbox`.
h)   _____ displays relevant help articles, based on the current context.
ANS: context-sensitive help.
i)   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 Basic files use the file extension `.bas`.
ANS: False. Visual Basic files use the file extension `.vb`.
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.
c)   GUI is an acronym for _____.
     ANS: graphical user interface.
ANS: `Image`.

d) 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 Basic app developers usually create complex apps without writing any code.
ANS: False. Visual Basic 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.