



Suggested Solutions to the Critical Thinking Questions

Section 1

1. It is considered good programming style to change the Name property of a control to a descriptive name that includes a prefix so that the name can easily remind the programmer what the object is and what it is being used for. For example, if a user is to enter their rate in a text box, **txtTaxRate** would be a good choice. The prefix also helps to standardize the structure of an application. This handbook uses prefixes based on Hungarian Notation. More information about Hungarian Notation can be found on the Microsoft web site, www.microsoft.com

The list below summarizes the prefixes that were used for the controls covered in this handbook:

CheckBox	chk
Button	btn or cmd
Label	lbl
Menu	mnu
Radio Button	opt
PictureBox	pic
TextBox	txt
Timer	tmr
Vertical Scroll Bar	vsb
Horizontal Scroll Bar	hsb

2. Factors that should be considered when selecting a font size include:
 - the font size should be big enough so that the user can easily read the text, but not so big that it appears “loud”.
 - serif fonts, such as Times New Roman, become difficult to read at small font sizes.
 - the information you want to draw the user’s eye to first should be in a larger font size than the other text on the form.

3. If the **ForeColor** and **BackColor** properties of a control are the same color, the **ForeColor** control will not be visible.
4. Setting a label’s **AutoSize** property to **True** results in the label’s size automatically adjusting to accommodate the text displayed on the label.

Section 2

1. If the picture is larger than the image control, only a portion of the picture will be displayed in the **PictureBox** control. This can be corrected by sizing the **PictureBox** control to fit the picture or by sizing the picture smaller in an application such as Adobe Photoshop or Corel Photo-Paint.
2. Along with mouse click events, control can also respond to a Double-click, Mouse Drag-over, and to pressing the **Enter** key.

Section 3

Suggested prefixes that can be used to identify the data type:

i or int	integer
sng	single
dbl	double
dec	decimal
s or str	string

1. A **Constant** should be used in an application that calculates the area of a circle. The formula that calculates the area of a circle requires the value of Pi (3.14159), which is a value that should not change during the execution of the program.
2. A **Double data** type should be used instead of a **Single data** type when it is necessary to store a number greater than 3.402823E38.