

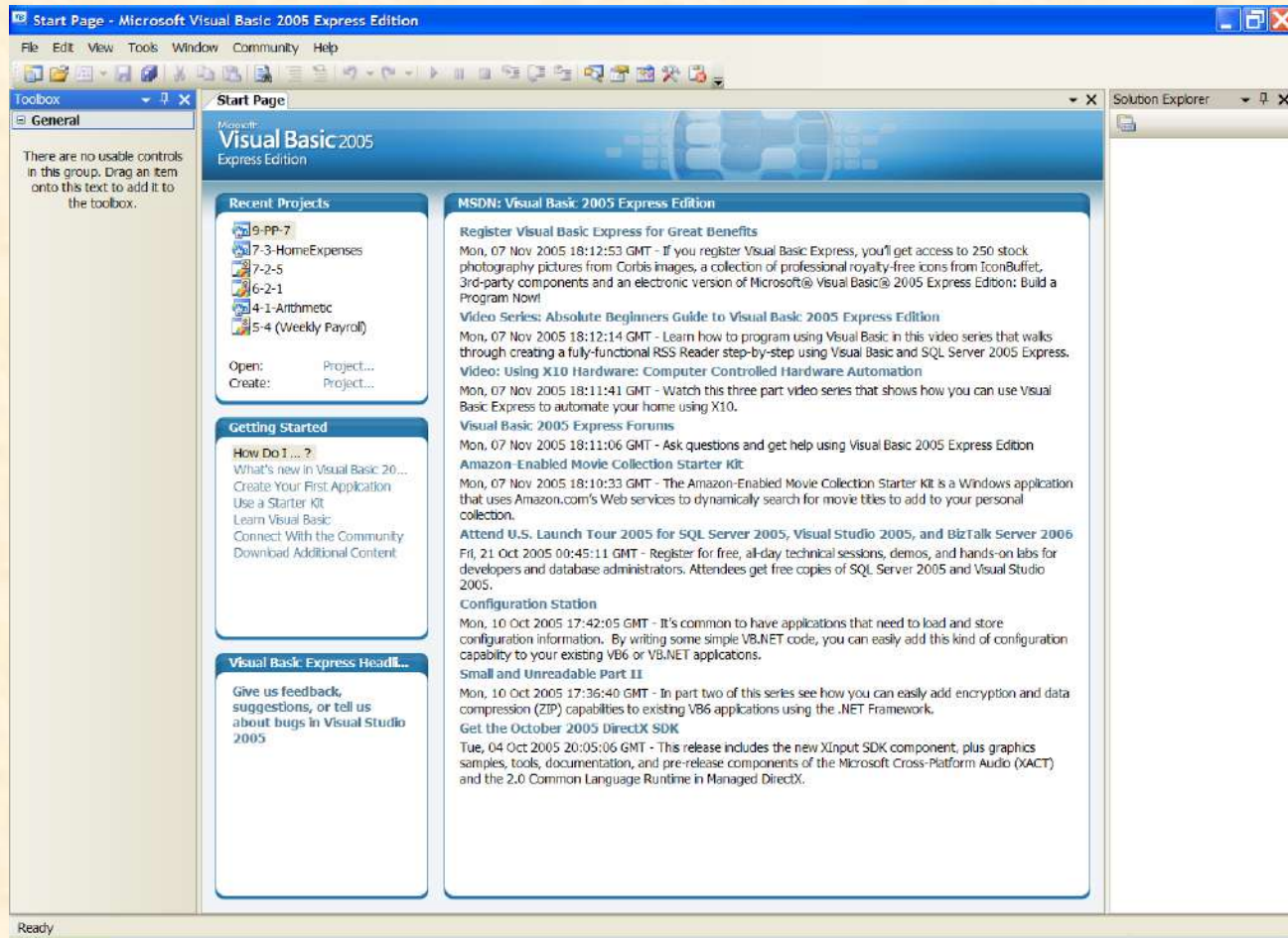
Chapter 3

Fundamentals of Programming in Visual Basic

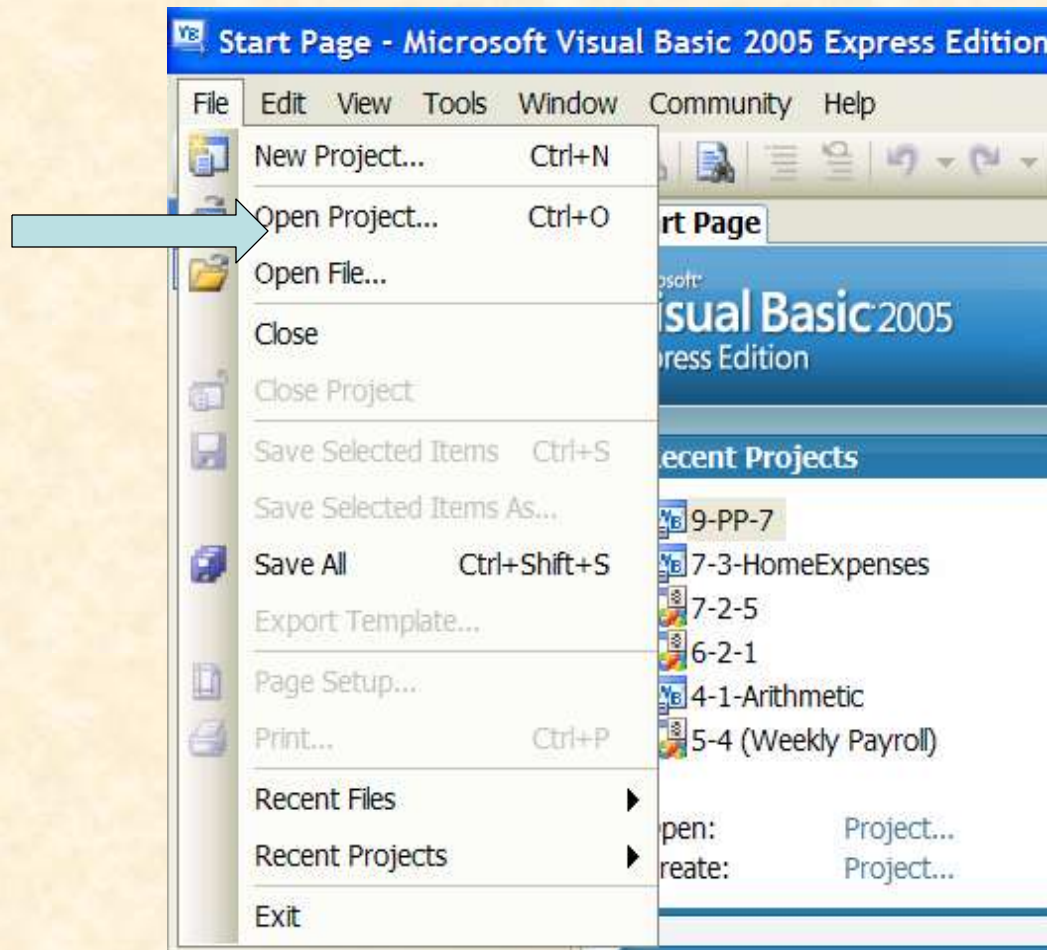
3.1 Visual Basic Controls

- Invoking Visual Basic
- Text Box Control
- Button Control
- Label Control
- List Box Control
- Name Property
- Fonts / Auto Hide
- Positioning and Aligning Controls

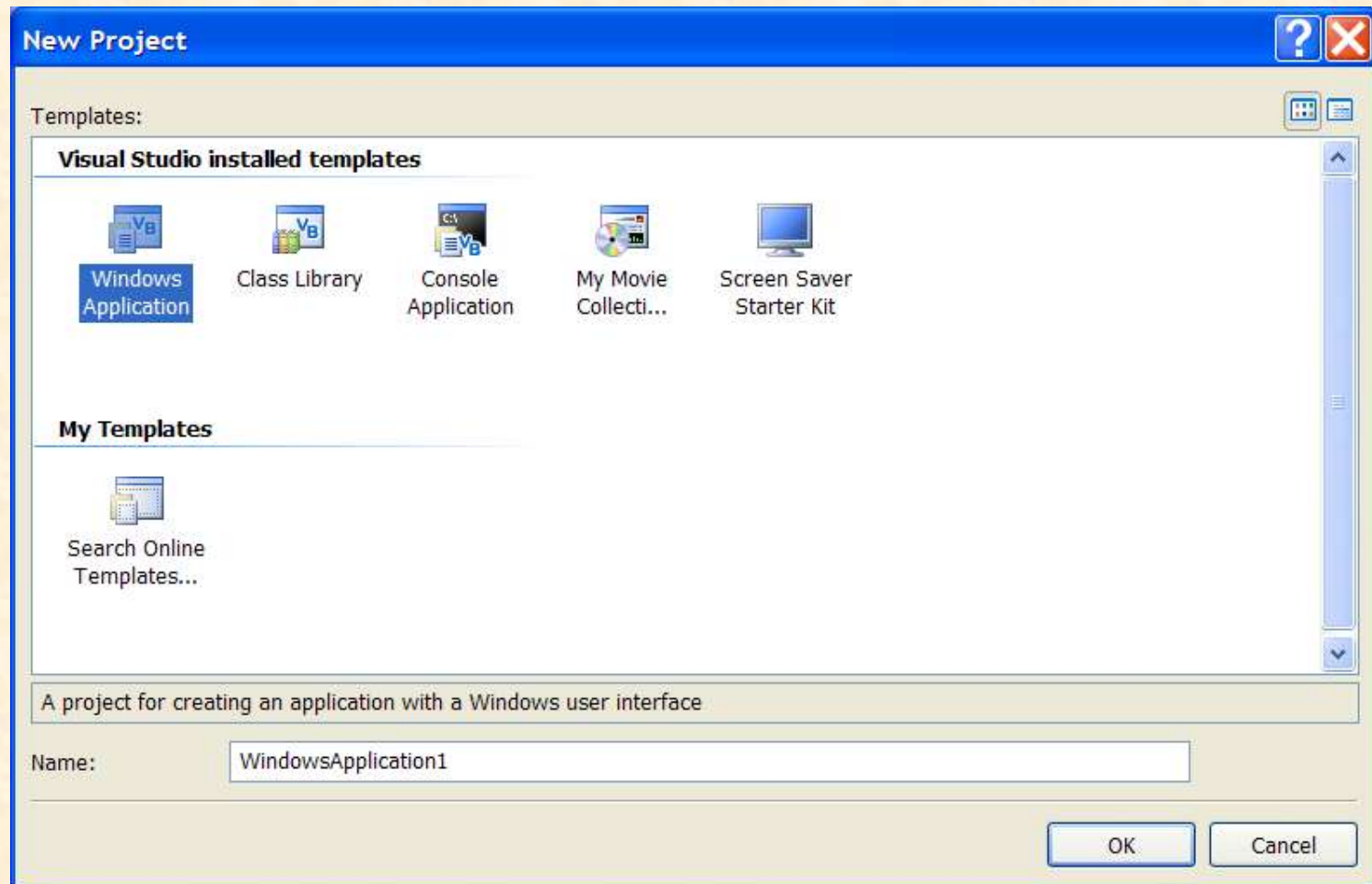
Visual Basic Start Page



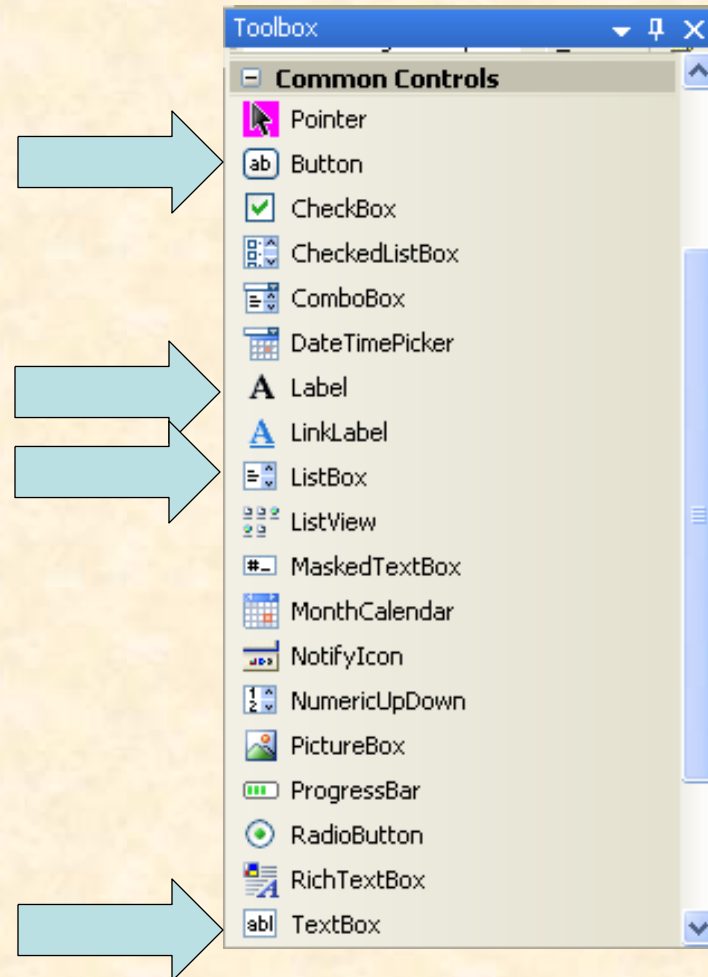
Start a New Project



New Project Dialog Box

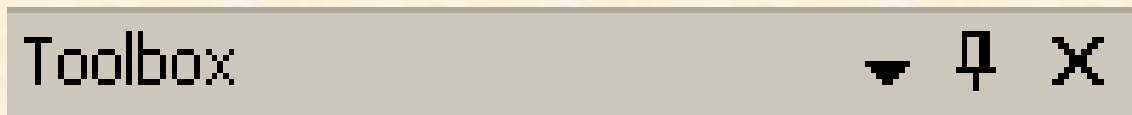


Toolbox



Auto Hide

- Hides Toolbox when not in use
- Vertical push pin icon indicates auto hide is disabled.
- Click the push pin to make it horizontal and enable auto hide.

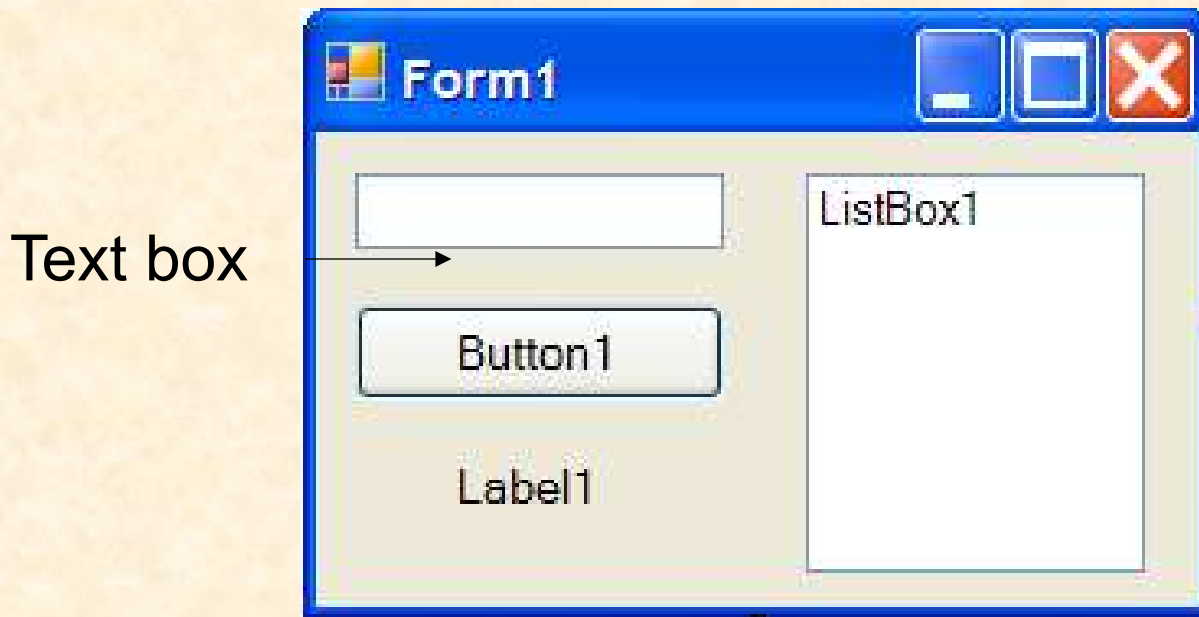


↑ Push pin

3 Ways to Place a Control from the Toolbox onto the Form Window

- Double-click
- Drag
- Click, Point, and Drag

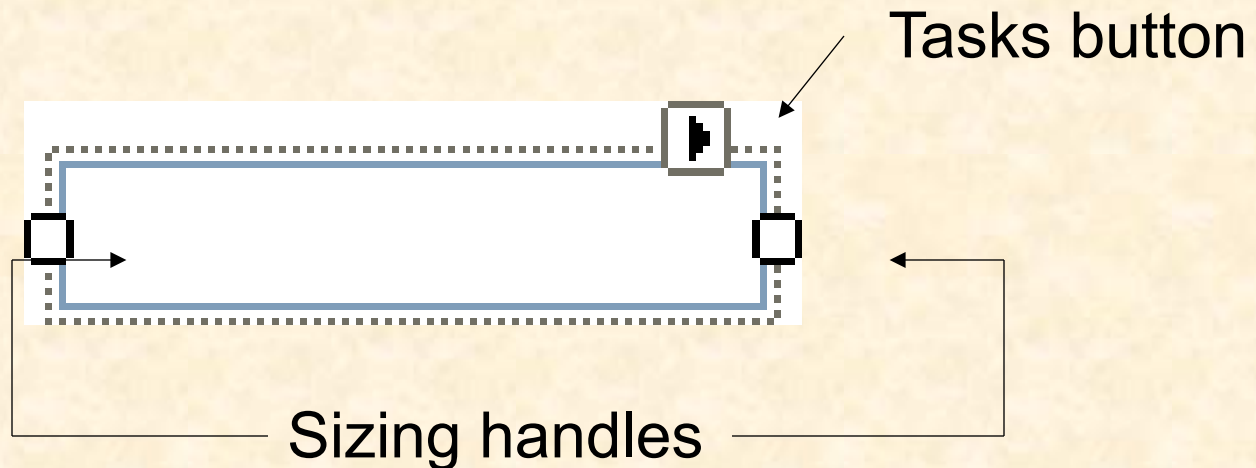
Four Controls at Design Time



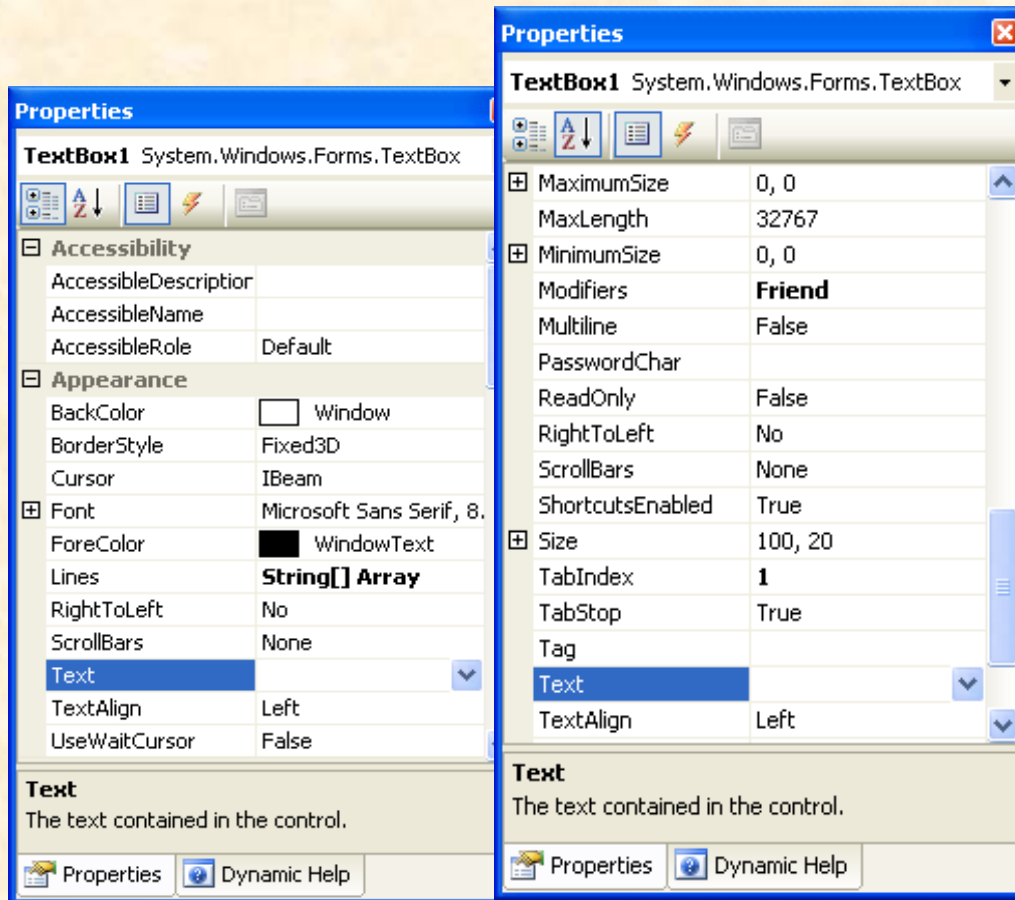
To select a control, click on it. Sizing handles will appear when a control is selected.

Text Box Control

- Used for input and output
- When used for output, ReadOnly property is set to True



Properties Window



Press F4 to display the Properties window for the selected control.

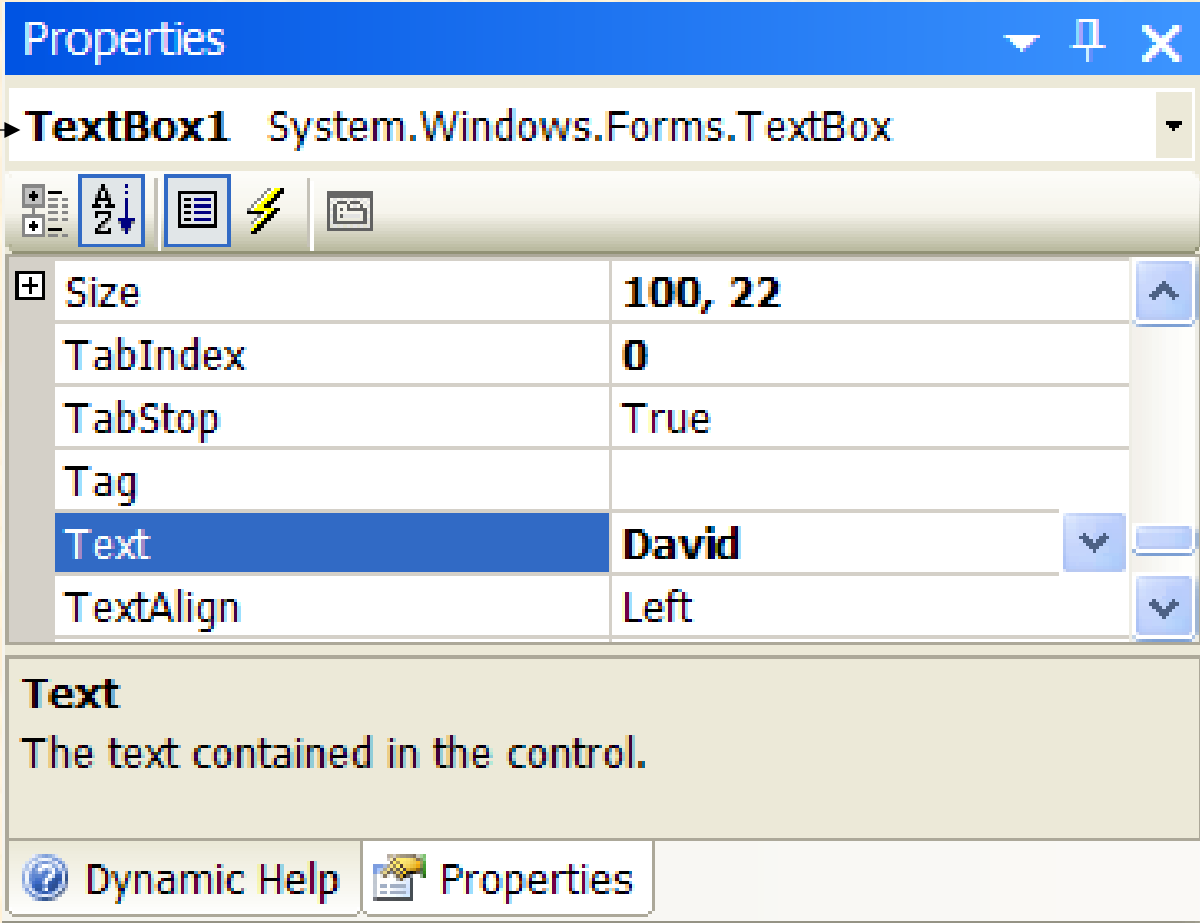
Categorized view Alphabetical view

Properties Window

Selected control →

Properties

Settings



The screenshot shows the 'Properties' window in Visual Studio. The title bar is blue with the text 'Properties' and standard window controls. Below the title bar, a dropdown menu shows 'TextBox1' with the full type 'System.Windows.Forms.TextBox' to its right. A toolbar with icons for list, font, list, lightning bolt, and lock is below the dropdown. The main area is a table of properties. The 'Text' property is selected and highlighted in blue. To the right of the table is a vertical scrollbar and two expand/collapse buttons. Below the table is a description for the selected 'Text' property. At the bottom are two tabs: 'Dynamic Help' and 'Properties'.

Property	Value
Size	100, 22
TabIndex	0
TabStop	True
Tag	
Text	David
TextAlign	Left

Text
The text contained in the control.

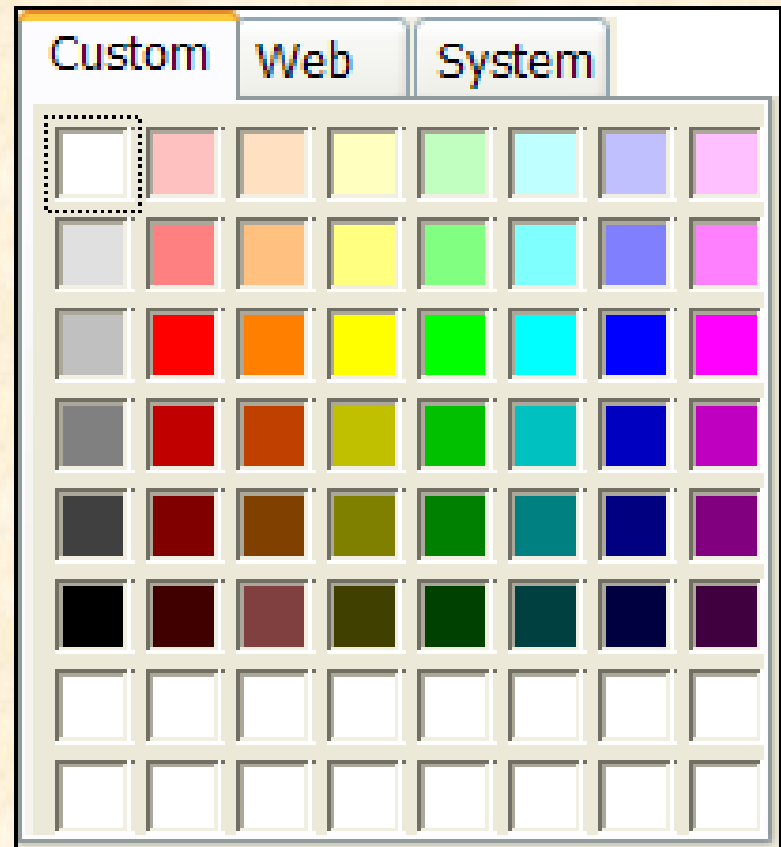
Dynamic Help Properties

Some Often Used Properties

- Text
- Autosize
- Font.Name
- Font.Size
- ForeColor
- BackColor
- ReadOnly

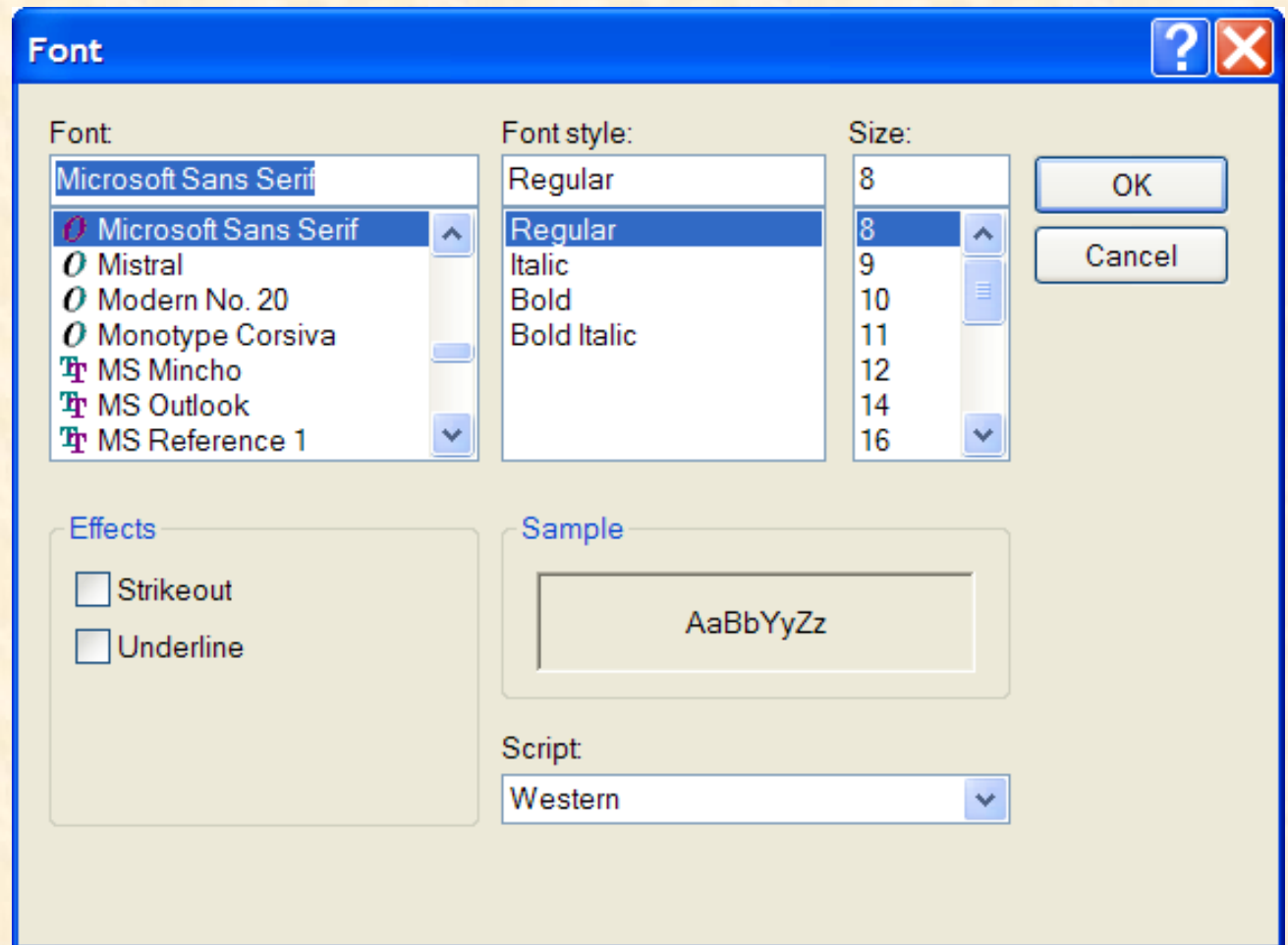
Setting the ForeColor Property

1. Click on ForeColor.
2. Click on button at right of settings box.
3. Click on Custom tab to obtain display shown.
4. Click on a color.



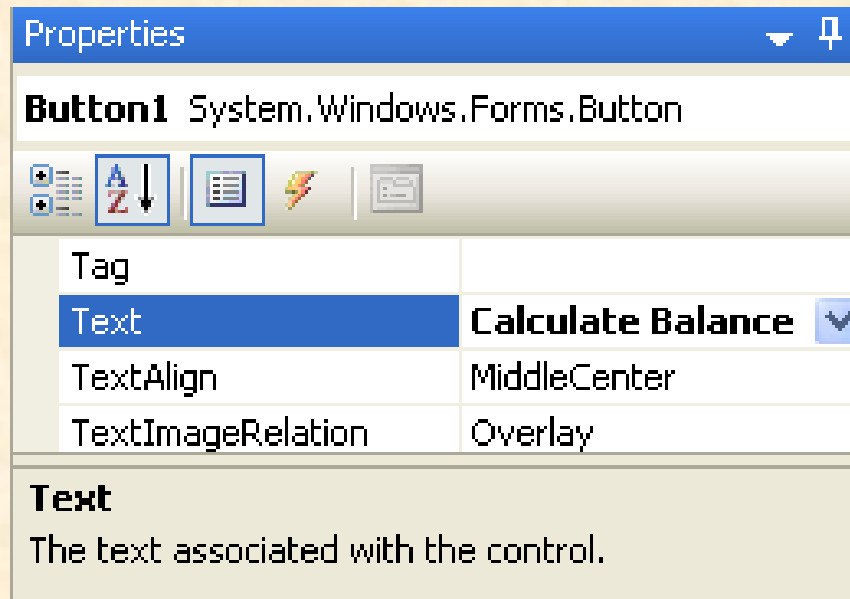
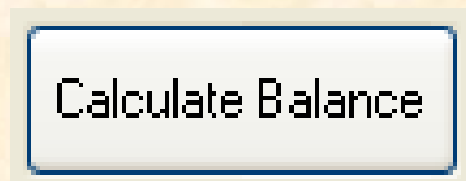
Font Property

1. Click on Font in left column.
2. Click on ellipsis at right of settings box to obtain display shown,
3. Make selections.



Button Control

- The caption on the button should indicate the effect of clicking on the button.
- Text property determines caption.



Add an "access key"



Properties ▼ 📌

Button1 System.Windows.Forms.Button

Tag	
Text	&Calculate Balance
TextAlign	MiddleCenter
TextImageRelation	Overlay

Text
The text associated with the control.

Label Control

- Used to identify the contents of a text box.
- Text property specifies caption.
- By default, label automatically resizes to accommodate caption on one line.
- When the `AutoSize` property is set to `False`, label can be resized manually. Used primarily to obtain a multi-rowed label.

List Box Control

- Initially used to display several pieces of output.
- Later used to select from a list.

The Name Property

- How the programmer refers to a control in code
- Setting for Name property near top of Properties window.
- Name must begin with a letter, be less than 215 characters long, and may include numbers and letters.
- Use appropriate 3- or 4-character naming prefix

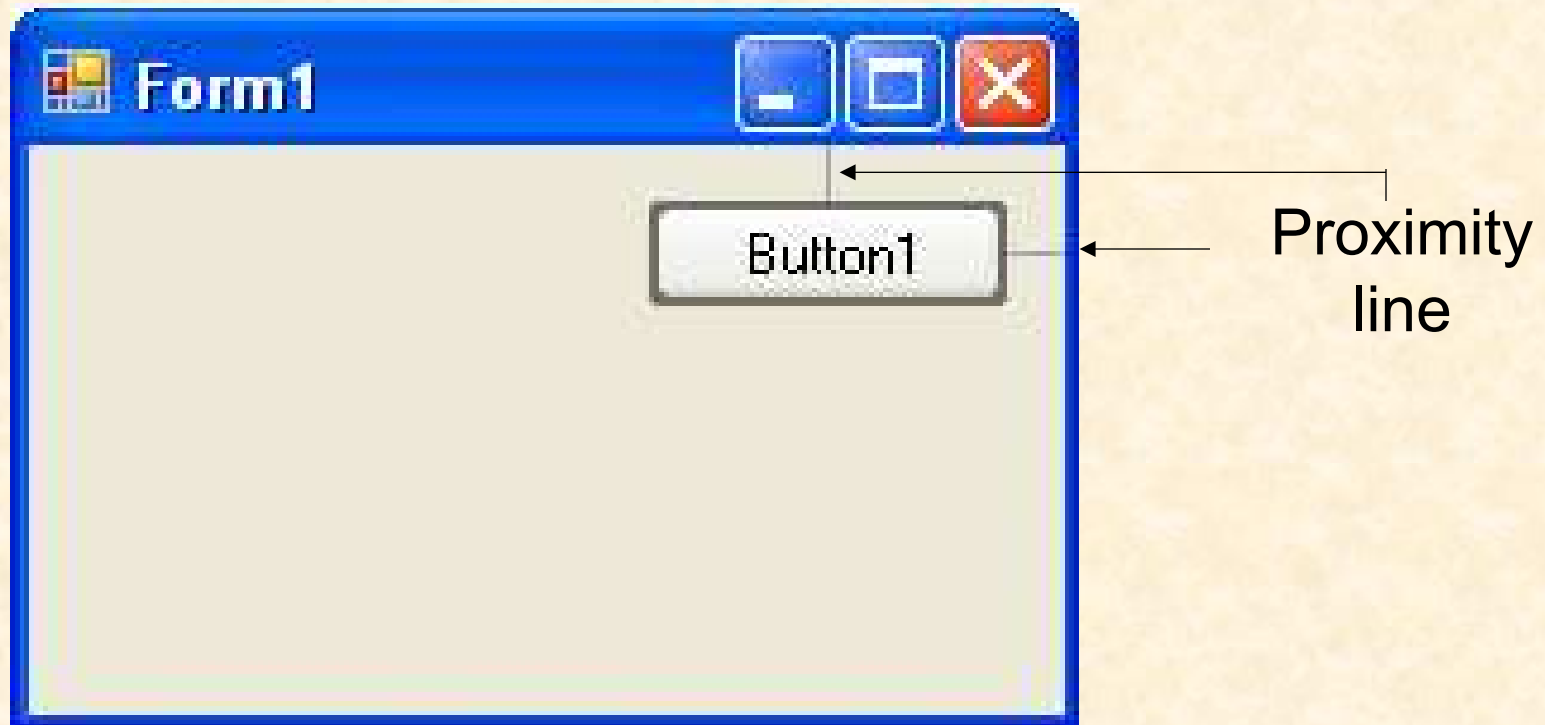
Control Name Prefixes

Control	Prefix	Example
button	btn	btnCompute
label	lbl	lblAddress
text box	txt	txtAddress
list box	lst	lstOutput

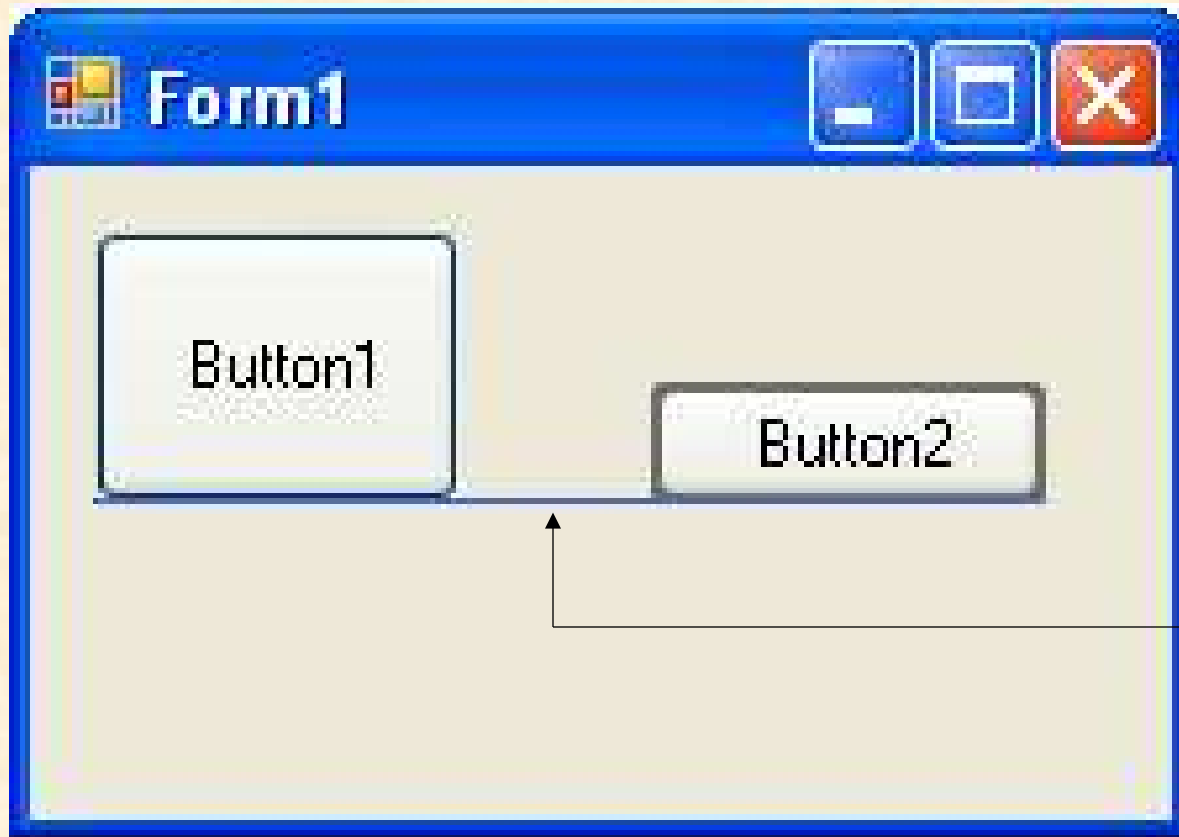
Fonts

- Proportional width fonts take up less space for "I" than for "W" – like Microsoft Sans Serif
- Fixed-width fonts take up the same amount of space for each character – like Courier New
- Fixed-width fonts are good for tables.

Positioning Controls



Aligning Controls



Snap line

Aligning Controls

