CSC317 Visual Programming: Day 05

- Attendance/download Day05 from D2L
- PowerPoint with Illustrations:
  - New object
    - Panel
      - To make colored rectangles
      - Objects in a panel inherit relative location and visibility
      - Brief demo
  - New structure
    - Array: lists of values, strings, or objects
    - For values and strings, can use ListBoxes or Arrays
      - Access item in a ListBox: ListBox_name.Items(row)
      - For an Array, declare it with
        - Dim Array_name(number_of_items) as Integer (or Decimal or String)
      - Access item in an Array with Array_name(row)
      - Brief demo
    - For objects, MUST use an Array
      - Design the objects
      - In form1.Load, assign the objects into the Array
      - Refer to the Array throughout the rest of the code
        - Intellisense will NOT help you type!
- Demo Problem: PanelArray
- Practice Problem: PanelArrayBlinking

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Demo Project: PanelArray
CODE

```
Public Class Form1
    Public ticks As Integer 'number of ticks of the clock
    Public p(4) As Panel

    Private Sub Form1_Load(ByVal sender As Object, ByVal e As
System.EventArgs) Handles Me.Load
        p(0) = Panel1
        p(1) = Panel2
        p(2) = Panel3
        p(3) = Panel4
        p(4) = Panel5

        ticks = 0  'just beginning
    End Sub
```

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Demo Project: PanelArray
CODE

```
 Private Sub tmr1_Tick(ByVal sender As Object, ByVal e As System.EventArgs)
Handles tmr1.Tick
        Dim i As Integer 'to loop through array
        If ticks = 1 Then 'line up all panels in the array
            For i = 0 To 4
                p(i).Top = 50 + 75 * i
                p(i).Left = 50
            Next
        ElseIf ticks > 6 Then 'go back to the starting line
            ticks = 0
        Else 'move all panels in the array
            For i = 0 To 4
                p(i).Left += 100
            Next
        End If
        ticks += 1
    End Sub

End Class
```

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Practice Project: PanelArrayBlinking

- Your design should include 5 panels with different colors located in various random starting locations
- As with the PanelArray project, line them all up on the left at the beginning and again every 5 ticks of a timer
- Have the panels move to the right, as with PanelArray, but with “attitude” – that is, random variations East-West and North-South
- Take turns “round-robin” blinking the panels in each tick of the timer
- Adjust the motion and the random variation to give a reasonable fit to the instructor’s version!