

중 간 고 사

2008 4 30

1. () Visual Basic 3가
(10)

- Easily and quickly built graphic user interface
- Event-driven language: , ,
- OOP (Object-Oriented Programming): (object)
(interaction) . 가
가

2. Class (object) . (10)
(characteristics) data fields property ,
(behavior) method event . (class)
(, , object) .

3. () (encapsulation)
(inheritance) . (10)

:
:
가 가
가

4. (Visual Basic 2005) . (15)

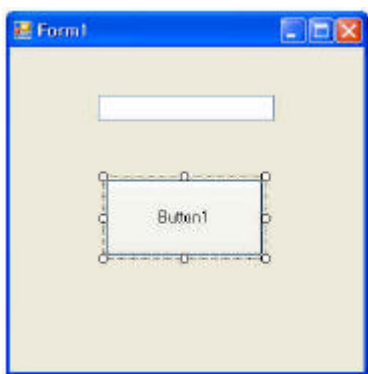
- 1) 3가 : integer (int32)-4 , short (int16) - 2 , long (int64) - 8
- 2) 3가 : single(4) , double(8) , decimal(12)
- 3) 3가 : (local), (module), (global)

5.

button1

. (15)

1 Form1 red 1 textbox "Hello, How are you?"가
 1 Form1 green 1 Form1 blue
 1 Form1 red 1 textbox "Hello, How are
 you?"가 (red가 2 , textbox) 1 Form1
 green 1 Form1 blue .



```

Public Class Form1
    Private Sub Button1_Click(ByVal sender As System.Object)
        Timer1.Interval = 1000
        Timer1.Start()
    End Sub
    Private Sub Timer1_Tick(ByVal sender As System.Object)
        Static i As Integer
        i += 1
        Select Case i Mod 4
            Case 0
                Me.BackColor = Color.Blue
            Case 1
                Me.BackColor = Color.Red
            Case 2
                TextBox1.Text = "Hello, How are you?"
            Case 3
                Me.BackColor = Color.Green
        End Select
        If i # 4 = 2 Then End
    End Sub
End Class

```

6. PictureBox

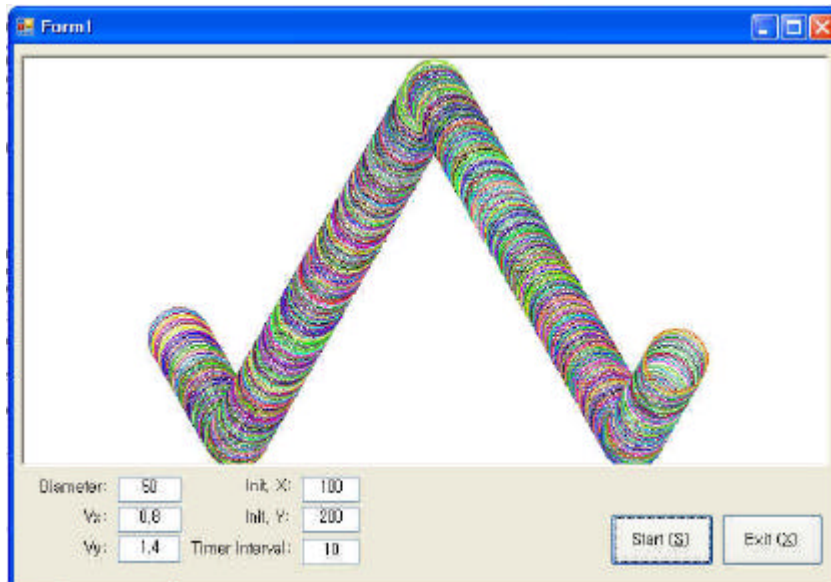
. (40)

- Control: picturebox, button, timer
- : graphics, pen
- PictureBox size: Width = 650, Height = 330
- textbox
- ()
- :

1)

```
penGr = New Pen(Color.FromArgb(255, Rnd() * 255, Rnd() * 255, Rnd() * 255))
```

2) X Y



```

Public Class Form1

    Dim Diameter As Integer
    Dim gr As Graphics
    Dim penGr As Pen
    Dim Velocity(2) As Single
    Dim LeftTopXY(2) As Single
    Private Sub btnExit_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
btnExit.Click

        Me.Close()

    End Sub

    Private Sub btnStart_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles
btnStart.Click

        Diameter = Val(txtDiameter.Text)
        Velocity(1) = Val(txtVx.Text)
        Velocity(2) = Val(txtVy.Text)
        LeftTopXY(1) = Val(txtX.Text)
        LeftTopXY(2) = Val(txtY.Text)
        Timer1.Interval = Val(txtInterval.Text)

        gr = PictureBox1.CreateGraphics()

        Timer1.Start()

    End Sub

    Private Sub Timer1_Tick(ByVal sender As Object, ByVal e As System.EventArgs) Handles
Timer1.Tick

        penGr = New Pen(Color.FromArgb(255, Rnd() * 255, Rnd() * 255, Rnd() * 255))
        gr.DrawEllipse(penGr, LeftTopXY(1), LeftTopXY(2), Diameter, Diameter)

        If LeftTopXY(1) + Velocity(1) < 0 Or LeftTopXY(1) + Diameter + Velocity(1) >
PictureBox1.Width Then
            Velocity(1) = -Velocity(1)
        End If

        If LeftTopXY(2) + Velocity(2) < 0 Or LeftTopXY(2) + Diameter + Velocity(2) >
PictureBox1.Height Then
            Velocity(2) = -Velocity(2)
        End If

        LeftTopXY(1) = LeftTopXY(1) + Velocity(1)
        LeftTopXY(2) = LeftTopXY(2) + Velocity(2)
        gr.DrawEllipse(penGr, LeftTopXY(1), LeftTopXY(2), Diameter, Diameter)

    End Sub

End Class

```