

Graphics Example

- **VB.NET draw lines**
- To draw a single line on the form, the DrawLine(Pen, Point1,Point2) can be used. With multiple lines you can use the DawLines(Pen, Array_Of_Points) method. To draw lines with different colors, you need to specify each color with Pen argument.
- Example: Draw lines on the current form

Public Class Form1

Private Sub Form1_Paint(ByVal sender As System.Object,
ByVal e As System.Windows.Forms.PaintEventArgs) Handles
MyBase.Paint

'Create point objects

Dim pt As New Point(50, 50)

Dim pt1 As New Point(300, 50)

Dim pt2 As New Point(200, 70)

Dim pt3 As New Point(50, 170)

Dim pt4 As New Point(300, 170)

Dim pt5 As New Point(200, 70)

'Array of points

Dim pArra() As Point = {pt2, pt3, pt4, pt5}

'Draw a line

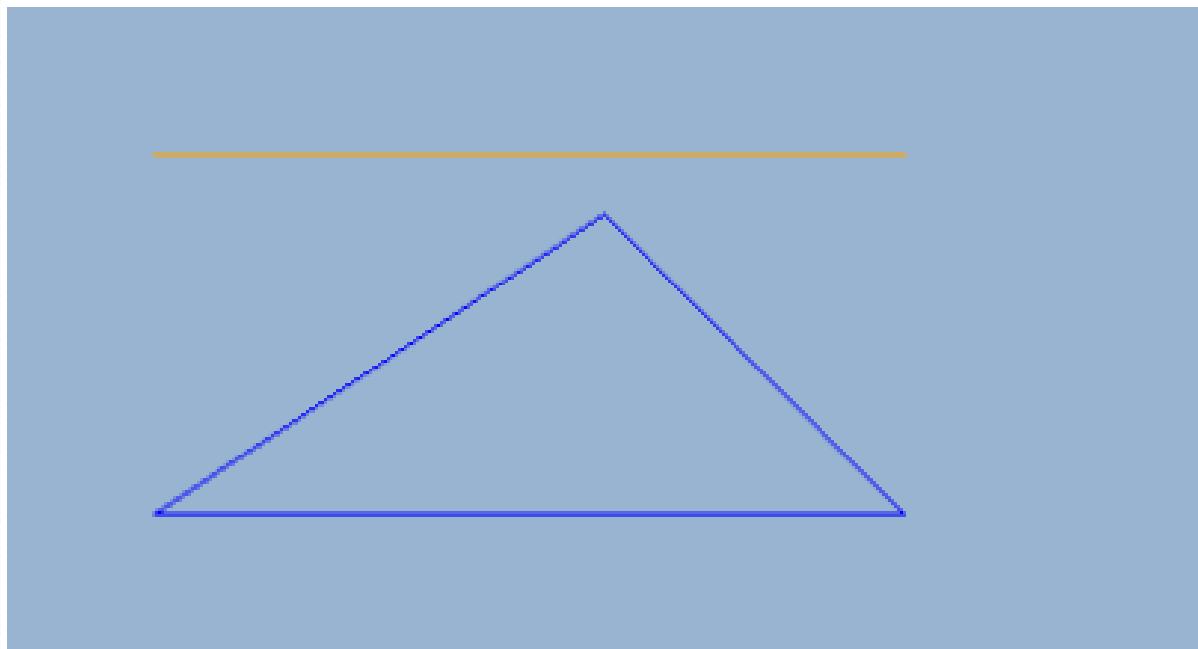
e.Graphics.DrawLine(Pens.Orange, pt, pt1)

'Draw multiple lines

e.Graphics.DrawLines(Pens.Blue, pArra)

End Sub

End Class



- **VB.NET draw rectangles**
- In this page, you will learn to draw a single and multiple rectangles on the current form. To draw a single rectangle on the form, the DrawRectangle(Pen, Rectangle_Obj) can be used. With multiple rectangles you can use the DrawRectangles(Pen, Array_Of_Rectangle_Obj) method.
- Example: Draw rectangles on the current form

- Public Class Form1

Private Sub Form1_Paint(ByVal sender As System.Object, ByVal e As System.Windows.Forms.PaintEventArgs) Handles MyBase.Paint

'Create rectangle objects

Dim rt As New Rectangle(100, 100, 100, 100)

Dim rt1 As New Rectangle(250, 100, 100, 100)

Dim rt2 As New Rectangle(400, 100, 100, 100)

'Array of rectangle objects

Dim arrRect() As Rectangle = {rt1, rt2}

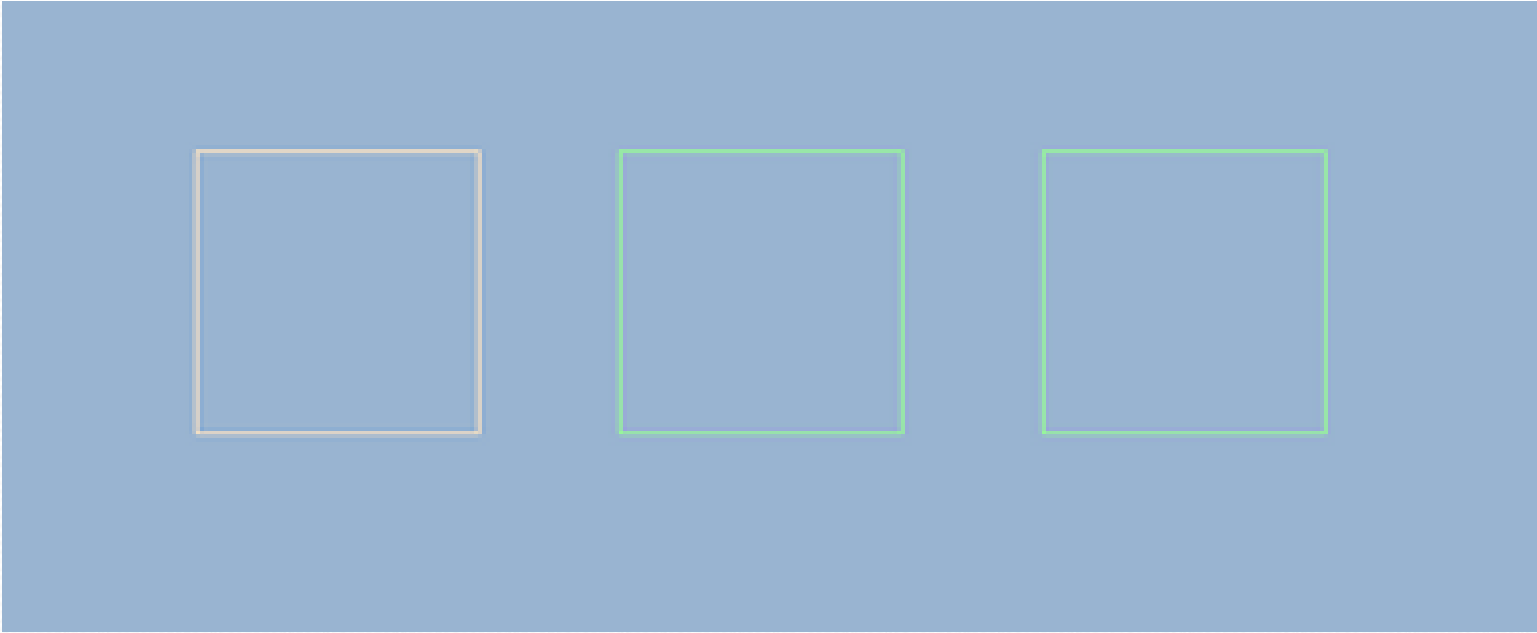
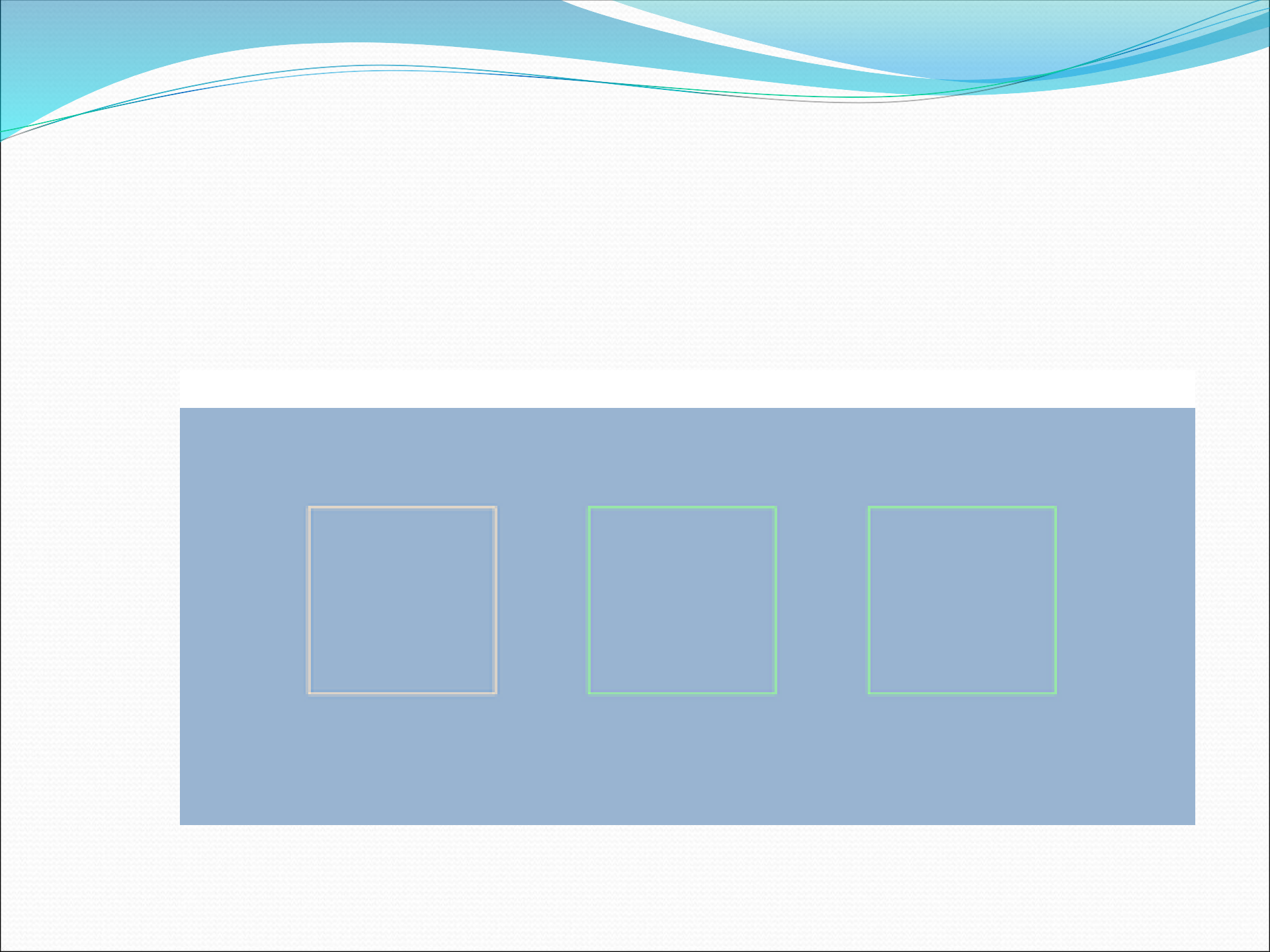
'Draw rectangles

e.Graphics.DrawRectangle(Pens.Bisque, rt)

e.Graphics.DrawRectangles(Pens.PaleGreen, arrRect)

End Sub

End Class



- **VB.NET draw arcs**
- To draw a curved shape can use the DrawArc() method. This method accepts four parameters. The first parameter is the pen object. Second parameter is the rectangle object that determines the boundaries of arc shapes. The third and fourth parameters are start angle and end angle(respectively).
- Example: drawing three arcs on the form

- Public Class Form1

Private Sub Form1_Paint(ByVal sender As System.Object, ByVal e As System.Windows.Forms.PaintEventArgs) Handles MyBase.Paint

'Create pen objects

Dim p As New Pen(Color.Green, 10)

Dim p1 As New Pen(Color.Yellow, 10)

Dim p2 As New Pen(Color.Red, 10)

'Create rectangle objects

Dim rt As New Rectangle(100, 150, 80, 100)

Dim rt1 As New Rectangle(130, 120, 120, 120)

Dim rt2 As New Rectangle(160, 100, 150, 150)

'Draw arcs

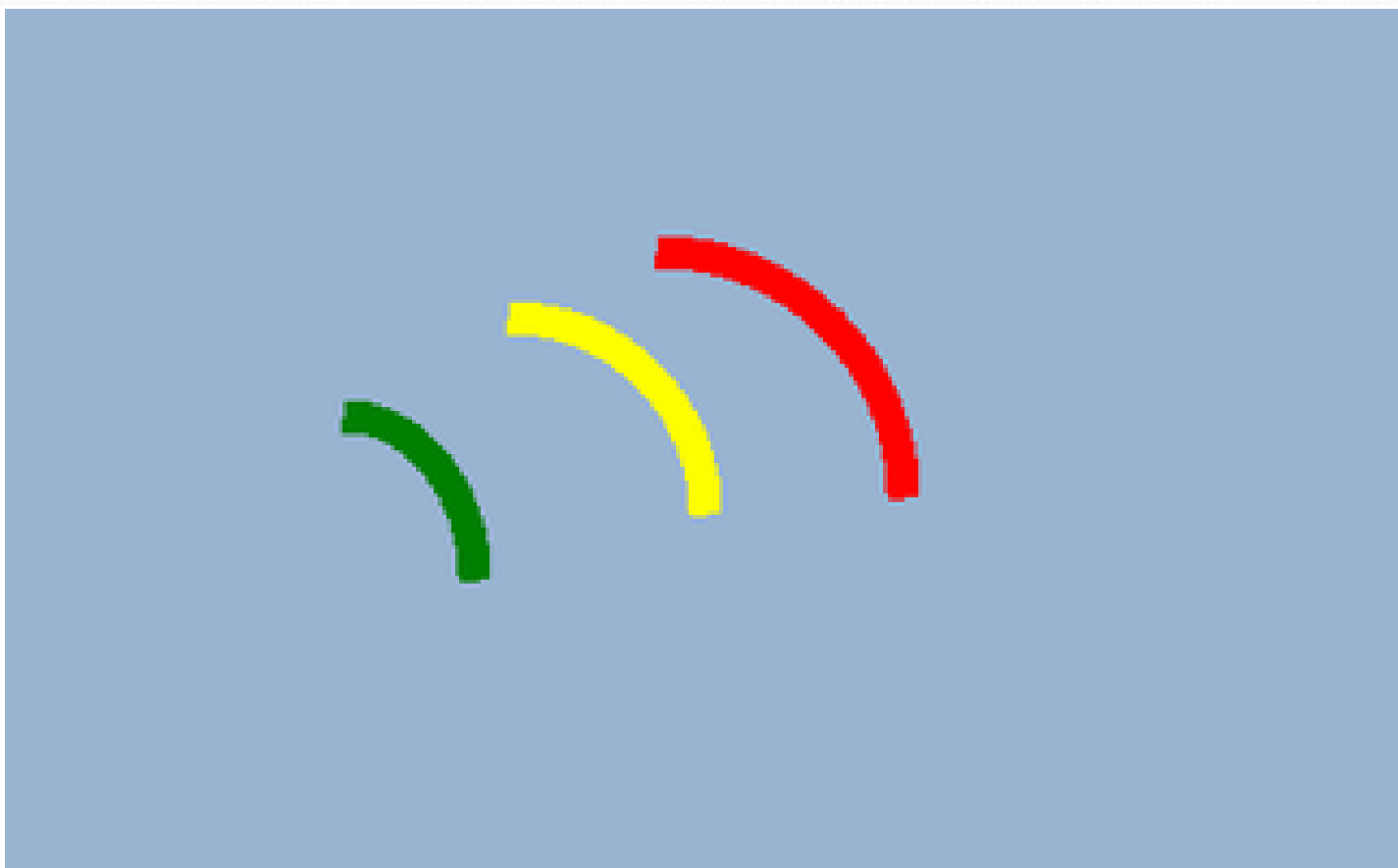
e.Graphics.DrawArc(p, rt, 0, -90)

e.Graphics.DrawArc(p1, rt1, 0, -90)

e.Graphics.DrawArc(p2, rt2, 0, -90)

End Sub

End Class



- **VB.NET draw ellipses**
- To draw an ellipse shape on the control, you can use the drawEllipse() method. The drawEllipse() method requires two parameters. The first parameter is a pen object and the second is the rectangle object.
- Example: drawing three ellipses on the form

- Public Class Form1

Private Sub Form1_Paint(ByVal sender As System.Object, ByVal e As System.Windows.Forms.PaintEventArgs) Handles MyBase.Paint

'Create pen objects

Dim po As New Pen(Color.Green, 10)

Dim p1 As New Pen(Color.Yellow, 10)

Dim p2 As New Pen(Color.Red, 10)

'Create rectangle objects

Dim rto As New Rectangle(100, 150, 80, 100)

Dim rt1 As New Rectangle(130, 120, 120, 120)

Dim rt2 As New Rectangle(160, 100, 150, 150)

'Draw ellipse

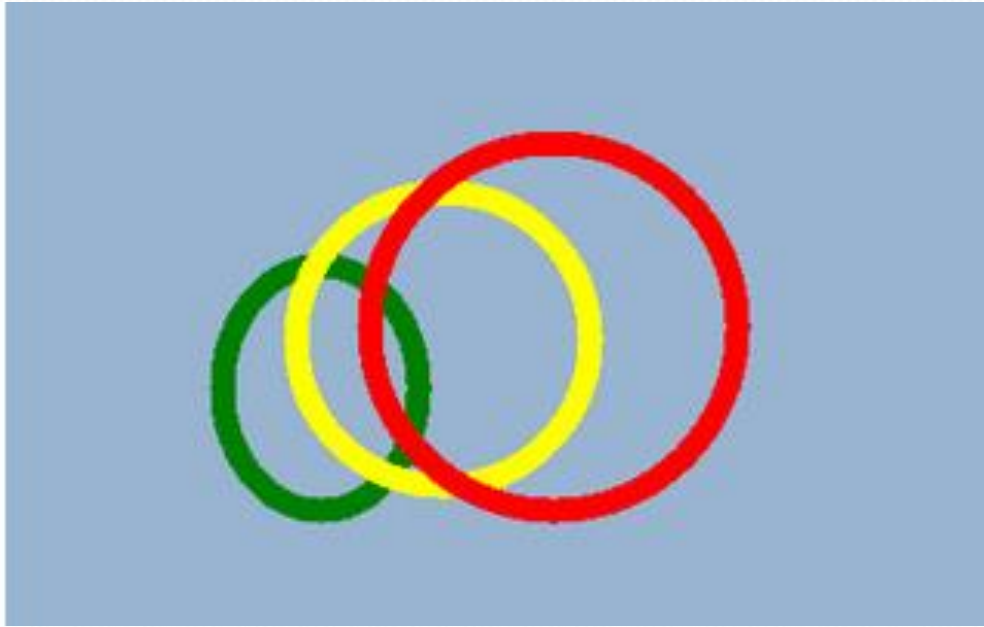
e.Graphics.DrawEllipse(po, rto)

e.Graphics.DrawEllipse(p1, rt1)

e.Graphics.DrawEllipse(p2, rt2)

End Sub

End Class



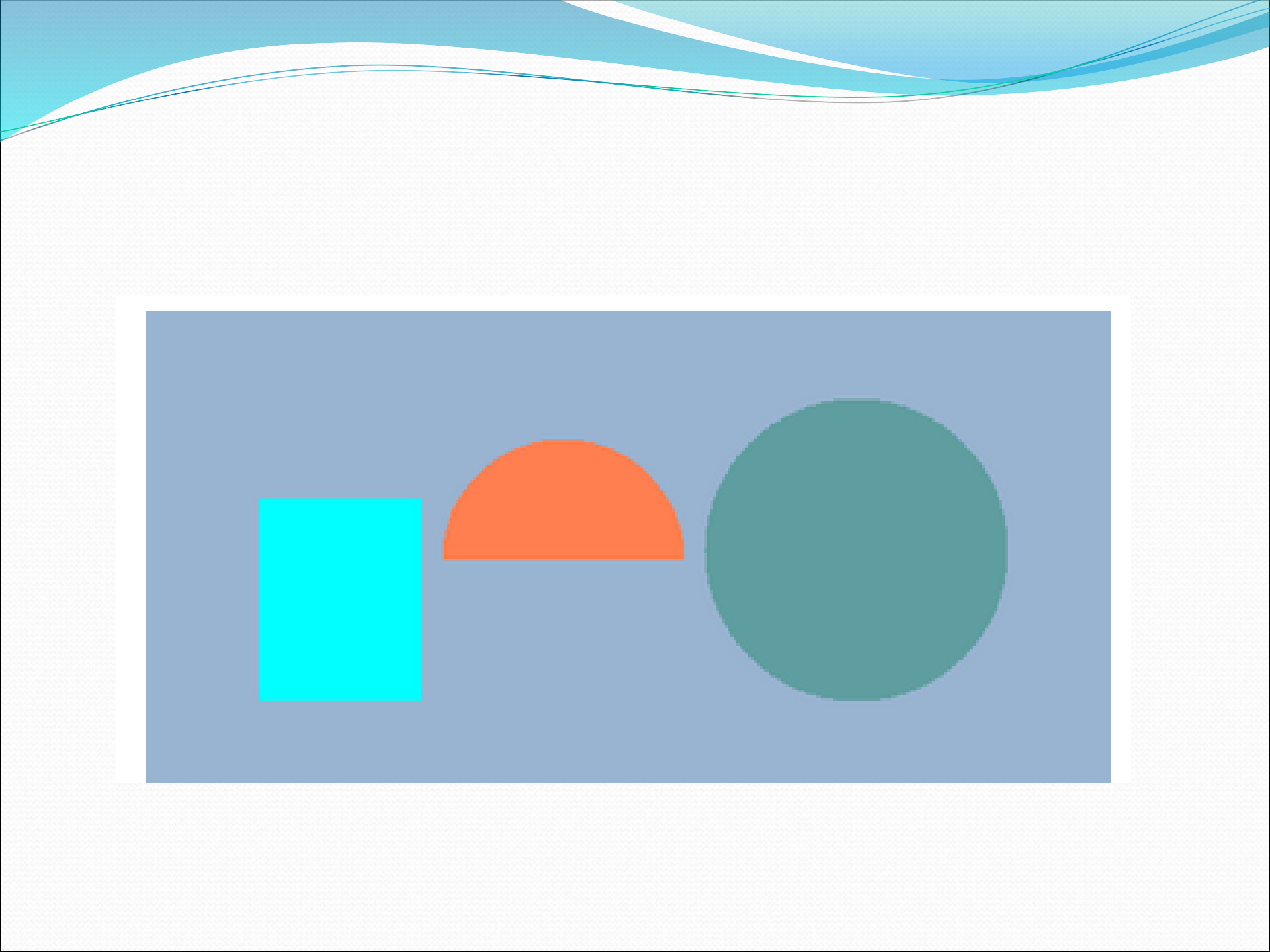
- **Fill shapes with solid brush**
- Closed shapes that are drawn on the control can be filled with a color or a mix of colors. You can fill a rectangle shape with a color by using `FillRectangle()` method. Filling an ellipse can be done with `FillEllipse()` method and `FillPie()` method to fill the pie shape.
- Example: Filling the rectangle, ellipse, and pie shapes with different colors.

- Public Class Form1
Private Sub Form1_Paint(ByVal sender As System.Object, ByVal e As System.Windows.Forms.PaintEventArgs) Handles MyBase.Paint

 'Create brush objects
 Dim bro As New SolidBrush(Color.Cyan)
 Dim br1 As New SolidBrush(Color.Coral)
 Dim br2 As New SolidBrush(Color.CadetBlue)

 'Create rectangle objects
 Dim rto As New Rectangle(100, 150, 80, 100)
 Dim rt1 As New Rectangle(190, 120, 120, 120)
 Dim rt2 As New Rectangle(320, 100, 150, 150)
 'Fill shapes
 e.Graphics.FillRectangle(bro, rto)
 e.Graphics.FillPie(br1, rt1, 0, -180)
 e.Graphics.FillEllipse(br2, rt2)

End Sub
End Class



- **Fill shapes with images**
- Besides filling the shapes with a color, a mix of colors, or patterns, you can fill the shapes with images. In this page you will learn to fill the closed shapes using different images. To fill the shapes with images, You need to create a TextureBrush object from the TextureBrush class of System.Drawing library and use it to fill your shapes.
- Example: filling the rectangle, pie, and ellipse with images

- Public Class Form1

Private Sub Form1_Paint(ByVal sender As System.Object, ByVal e As System.Windows.Forms.PaintEventArgs) Handles MyBase.Paint

'Create image objects

Dim image0 As Image = Image.FromFile("image0.bmp")

Dim image1 As Image = Image.FromFile("image1.bmp")

Dim image2 As Image = Image.FromFile("image2.bmp")

'Create brush objects with images

Dim bro As New TextureBrush(image0)

Dim br1 As New TextureBrush(image1)

Dim br2 As New TextureBrush(image2)

'Create rectangle objects

Dim rto As New Rectangle(50, 100, 200, 200)

Dim rt1 As New Rectangle(260, 100, 200, 200)

Dim rt2 As New Rectangle(470, 100, 200, 200)

'Fill shapes

e.Graphics.FillRectangle(bro, rto)

e.Graphics.FillPie(br1, rt1, 0, -180)

e.Graphics.FillEllipse(br2, rt2)

End Sub

End Class



