

Forum:[Hack Forums](#)

Thread: [Circle Detection using EMGU Invoke error](#)

SeargentHam - December 9, 2015, 10:30 pm

Hello I am using EMGU to detect circles within an image and i'm receiving the error "EMGU.Invoke"
I know this has to do with it being a 64bit system but I've tried re referencing the new version but nothing fixes it.

Error:

```
Dim img As Emgu.CV.Image(Of Emgu.CV.Structure.Bgr, Byte) = New Emgu.CV.Image(Of Emgu.CV.Structure.Bgr, Byte)
```

```
Code Imports Emgu.CV.UI
Imports Emgu.CV
Imports Emgu.CV.Structure
Imports System
Imports System.ComponentModel
Imports System.Drawing
Imports System.Windows.Forms
Imports System.Collections.Generic
```

```
Public Class ShapeDetection
```

```
Private Sub loadImageButton_Click_1(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles loadImageButton.Click
    Select Case Me.openFileDialog1.ShowDialog
        Case DialogResult.OK, DialogResult.Yes
            Me.fileNameTextBox.Text = Me.openFileDialog1.FileName
        Exit Select
    End Select
End Sub
```

```
Public Sub PerformShapeDetection()
    If (Me.fileNameTextBox.Text <> String.Empty) Then
        ' Load the image from file and resize it for display
        Dim img As Emgu.CV.Image(Of Emgu.CV.Structure.Bgr, Byte) = New Emgu.CV.Image(Of Emgu.CV.Structure.Bgr, Byte)(fileNameTextBox.Text).Resize(400, 400, Emgu.CV.CvEnum.INTER.CV_INTER_LINEAR, True)
        ' Convert the image to grayscale and filter out the noise
        Dim gray As Emgu.CV.Image(Of Emgu.CV.Structure.Gray, Byte) = img.Convert(Of Gray, Byte).PyrDown.PyrUp()

        Dim cannyThreshold As New Gray(180)
        Dim cannyThresholdLinking As New Gray(120)
        Dim circleAccumulatorThreshold As New Gray(500)
        Dim circles As CircleF() = gray.HoughCircles(cannyThreshold, circleAccumulatorThreshold, 4.0, 15.0, 5, 0)(0) 'Get the circles from the first channel
        Dim cannyEdges As Image(Of Gray, Byte) = gray.Canny(cannyThreshold, cannyThresholdLinking)
        Dim lines As LineSegment2D() = cannyEdges.HoughLinesBinary(1, Math.PI / 45.0, 20, 30,
```

10)(0)

```
Dim triangleList As New List(Of Triangle2DF)()
Dim boxList As New List(Of MCvBox2D)() 'a box is a rotated rectangle
```

```
Using storage As New MemStorage()
```

```
    'allocate storage for contour approximation
```

```
    Dim contours As Contour(Of Point) =
```

```
cannyEdges.FindContours(Emgu.CV.CvEnum.CHAIN_APPROX_METHOD.CV_CHAIN_APPROX_
SIMPLE, Emgu.CV.CvEnum.RETR_TYPE.CV_RETR_LIST, storage)
```

```
    While contours IsNot Nothing
```

```
        Dim currentContour As Contour(Of Point) = contours.ApproxPoly(contours.Perimeter *
0.05, storage)
```

```
        If currentContour.Area > 250 Then
```

```
            'only consider contours with area greater than 250
```

```
            If currentContour.Total = 3 Then
```

```
                'The contour has 3 vertices, it is a triangle
```

```
                Dim pts As Point() = currentContour.ToArray()
```

```
                triangleList.Add(New Triangle2DF(pts(0), pts(1), pts(2)))
```

```
            ElseIf currentContour.Total = 4 Then
```

```
                'The contour has 4 vertices.
```

```
                ' "determine if all the angles in the contour are within [80, 100] degree"
```

```
                Dim isRectangle As Boolean = True
```

```
                Dim pts As Point() = currentContour.ToArray()
```

```
                Dim edges As LineSegment2D() = PointCollection.PolyLine(pts, True)
```

```
                For i As Integer = 0 To edges.Length - 1
```

```
                    Dim angle As Double = Math.Abs(edges((i + 1) Mod
edges.Length).GetExteriorAngleDegree(edges(i)))
```

```
                    If angle < 80 OrElse angle > 100 Then
```

```
                        isRectangle = False
```

```
                        Exit For
```

```
                    End If
```

```
                Next
```

```
                If isRectangle Then
```

```
                    boxList.Add(currentContour.GetMinAreaRect())
```

```
                End If
```

```
            End If
```

```
        End If
```

```
        contours = contours.HNext
```

```
    End While
```

```
End Using
```

```
originalImageBox.Image = img
```

```
Dim triangleRectangleImage As Image(Of Bgr, Byte) = img.CopyBlank
```

```
Dim triangle As Triangle2DF
```

```
For Each triangle In triangleList
```

```
    triangleRectangleImage.Draw(triangle, New Bgr(Color.DarkBlue), 2)
```

```
Next
```

```
Dim box As MCvBox2D
```

```

For Each box In boxList
    triangleRectangleImage.Draw(box, New Bgr(Color.DarkOrange), 2)
Next
triangleRectangleImageBox.Image = triangleRectangleImage
Dim circleImage As Image(Of Bgr, Byte) = img.CopyBlank
Dim circle As CircleF
For Each circle In circles
    circleImage.Draw(circle, New Bgr(Color.Brown), 2)
Next
circleImageBox.Image = circleImage
Dim lineImage As Image(Of Bgr, Byte) = img.CopyBlank
Dim line As LineSegment2D
For Each line In lines
    lineImage.Draw(line, New Bgr(Color.Green), 2)
Next
lineImageBox.Image = lineImage

End If
End Sub

```

```

Private Sub fileNameTextBox_TextChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles fileNameTextBox.TextChanged
    Me.PerformShapeDetection()
End Sub

```

End Class

mrnikbobjeff - December 10, 2015, 7:30 am

This is most likely caused by not following the installation tutorial on the EmguCV page. Are you sure that you have the opencv libraries in the corresponding directories and that you are referencing the correct dll's? Are you copying the dll files to the output directory?

SeargentHam - December 10, 2015, 8:50 am

I followed the tutorial perfectly from what I see have the OpenCV dlls in output directory but still says unable to load opencv_core240