LAMPIRAN A

Listing Program

Listing Program pada Microsoft Visual Basic 6.0

```
Private Declare Function GetPixel Lib "GDI32" (ByVal hDC As Long, ByVal x
As Long, ByVal y As Long) As Long

Private Declare Function SetPixel Lib "GDI32" (ByVal hDC As Long, ByVal x
As Long, ByVal y As Long, ByVal crColor As Long) As Long

Private Declare Function GetTickCount& Lib "kernel32" ()

Option Explicit



Private Sub Cmd_sisibelakang_Click()

Dim w(400, 400) As Integer
Dim i As Long, j As Long, A As Integer
Dim r As Integer, G As Integer, b As Integer
Dim R2 As Integer, G2 As Integer, B2 As Integer
Dim c As Long, c2 As Long
Dim t As Integer
Dim x1 As Double, y1 As Double, z1 As Double
Dim n As Long, n1 As Long, n2 As Long
Dim warna As String
Dim kellblk As Long, luasblk As Long, luasblk_awal As Long
Dim wx As Long, wx1 As Long, wx2 As Long
Dim s1 As Long          'sisi kiri
Dim s2 As Long          'sisi atas
Dim s3 As Long          'sisi kanan
Dim s4 As Long          'sisi bawah
Dim xmin3 As Long
Dim xmax3 As Long
Dim ymin3 As Long
Dim ymax3 As Long
Dim x As Long
Dim x33 As Long
Dim y33 As Long


'-------------------------------------------------
'Proses Untuk Gambar Sisi Belakang
'-------------------------------------------------
'Segmentasi
Picture1.Cls
Picture2.Cls
List1.Clear
```

```
List2.Clear

t = 45
luasblk_awal = 0

Picture2.ScaleMode = vbPixels
Picture5.ScaleMode = vbTwips

Picture7.BackColor = Picture5.Point(Picture5.Width / 2, Picture5.Height / 2 -
500) '+ 200

Picture5.ScaleMode = vbPixels

If Picture7.BackColor <> &H8000000F Then

Picture2.Cls

  For i = 0 To Picture5.ScaleWidth
    For j = 0 To Picture5.ScaleHeight

      c = GetPixel(Picture5.hDC, i, j)

      r = c Mod 256
      G = (c \ 256) Mod 256
      b = (c \ 256 \ 256) Mod 256

      c2 = Picture7.BackColor

      R2 = c2 Mod 256
      G2 = (c2 \ 256) Mod 256
      B2 = (c2 \ 256 \ 256) Mod 256

      If Abs(r - R2) < t And Abs(G - G2) < t And Abs(b - B2) < t Then

        SetPixel Picture2.hDC, i, j, RGB(r, G, b)

        luasblk_awal = luasblk_awal + 1
        Text9.Text = luasblk_awal

      Else
        SetPixel Picture2.hDC, i, j, vbYellow
      End If

    Next j

  Next i
  End If
```

```
'scan koordinat
Picture2.ScaleMode = vbPixels

   For i = 5 To Picture2.ScaleWidth - 10
      For j = 5 To Picture2.ScaleHeight - 10

         warna = Picture2.Point(i, j)

         r = warna And RGB(255, 0, 0)
         G = Int((warna And RGB(0, 255, 0)) / 256)
         b = Int(Int((warna And RGB(0, 0, 255)) / 256) / 256)

         If  r <> 255 And G <> 255 And b <> 0 Then

            List1.AddItem (i)
            List2.AddItem (j)

         End If

      Next j

   Next i

       xmin3 = Int(List1.List(0))
       'Text6.Text = xmin3

       xmax3 = Int(List1.List(0))
       'Text7.Text = xmax3

       ymin3 = Int(List2.List(0))
       'Text8.Text = ymin3

       ymax3 = Int(List2.List(0))
       'Text9.Text = ymax3


   For A = 0 To List1.ListCount - 1
      If xmin3 <= Int(List1.List(A)) Then
         xmin3 = xmin3 + 0
         'Text6.Text = xmin3

      Else

         xmin3 = Int(List1.List(A))
         'Text6.Text = xmin3
      End If
      'Text6.Text = xmin3 ' nilai xmin yang digunakan
```

```
    If xmax3 >= Int(List1.List(A)) Then
       xmax3 = xmax3 + 0
       'Text8.Text = xmax3
    Else

       xmax3 = Int(List1.List(A))
       'Text8.Text = xmax3
    End If
    'Text8.Text = xmax3 ' nilai xmax yang digunakan


    If ymin3 <= Int(List2.List(A)) Then
       ymin3 = ymin3 + 0
       'Text7.Text = ymin3
    Else

       ymin3 = Int(List2.List(A))
       'Text7.Text = ymin3
    End If
    'Text7.Text = ymin3 ' nilai xmax yang digunakan


    If ymax3 >= Int(List2.List(A)) Then
       ymax3 = ymax3 + 0
       'Text9.Text = ymax3
    Else

       ymax3 = Int(List2.List(A))
       'Text9.Text = ymax3
    End If
    'Text9.Text = ymax3 ' nilai xmax yang digunakan

Next A

    s1 = ymax3 - ymin3
    s1 = s1 + 1
    'Text6.Text = s1

    s3 = s1
    'Text7.Text = s3

    s2 = xmax3 - xmin3
    s2 = s2 + 1
    'Text8.Text = s2

    s4 = s2
    'Text9.Text = s4
```

```
   Call testbentuk1(xmin3, xmax3, ymin3, ymax3, luasblk_awal)


If Label9.Caption = "persegi" Or Label9.Caption = "rectangle" Then

   Picture1.BackColor = vbYellow

   For i = 5 To Picture1.ScaleWidth - 5
      For j = 5 To Picture1.ScaleHeight - 5

      If i = xmin3 And j = ymin3 Then

            For x33 = xmin3 To xmax3
               For y33 = ymin3 To ymax3
                  Picture1.PSet (x33, y33), vbRed 'RGB(255, 0, 0)
               Next y33
            Next x33

      GoTo a33

         End If

      Next j
   Next i

ElseIf Label9.Caption = "lingkaran" Then

      Picture1.BackColor = vbYellow

      Picture1.FillStyle = vbFSSolid
      Picture1.FillColor = vbRed
      Picture1.Circle (160, 120), Int(s2 / 2), vbRed

Else
   MsgBox "Obyek Harus Berupa Kubus, Balok, atau Bola (238)!!!" & vbCrLf &
"Silahkan Ulangi!", vbOKOnly, "Peringatan!!!"
   GoTo 1
End If


a33:
'Konversi Biner( Hit luas )

luasblk = 0
For i = 5 To Picture1.ScaleWidth - 5
```

```
  For j = 5 To Picture1.ScaleHeight - 5

     warna = Picture1.Point(i, j)

     r = warna And RGB(255, 0, 0)
     G = Int((warna And RGB(0, 255, 0)) / 256)
     b = Int(Int((warna And RGB(0, 0, 255)) / 255) / 256)

     x = (r + G + b) / 3
     If x < 128 Then x = 0 Else x = 255

     'Picture1.PSet (i, j), RGB(x, x, x)

     If x = 0 Then
        luasblk = luasblk + 1
        'Text9.Text = luasblk
     End If

  Next j

Next i


'Deteksi Tepi ( Hit Kell )
kellblk = 0
n1 = 0
For i = 1 To Picture1.ScaleWidth
   n1 = n1 + 1
   n2 = 0
   For j = 1 To Picture1.ScaleHeight

      warna = Picture1.Point(i, j)

      r = warna And RGB(255, 0, 0)
      G = Int((warna And RGB(0, 255, 0)) / 256)
      b = Int(Int((warna And RGB(0, 0, 255)) / 255) / 256)

      wx = Int((r + G + b) / 3)

      n2 = n2 + 1
      w(n1, n2) = wx

   Next j
Next i

For i = 5 To n1 - 5
   For j = 5 To n2 - 5
```

```
      If i = 1 Then wx1 = w(i, j) Else wx1 = w(i, j) - w(i - 1, j)
      If j = 1 Then wx2 = w(i, j) Else wx2 = w(i, j) - w(i, j - 1)

      wx = Abs(wx1) + Abs(wx2)

      'Picture2.PSet ((i - 1) * 15 + 1, (j - 1) * 15 + 1), RGB(wx, wx, wx)

         If wx <> 0 And wx > 5 Then
            'Picture2.PSet ((i - 1) * 15 + 1, (j - 1) * 15 + 1), RGB(255, 255, 255)
            kellblk = kellblk + 1
         End If

   Next j
Next i

      kellblk = kellblk + 1

      List5.List(0) = luasblk
      List5.List(1) = kellblk
      List5.List(2) = s1
      List5.List(3) = s2
      List5.List(4) = s3
      List5.List(5) = s4

1:
End Sub


Private Sub Cmd_sisidepan_Click()
'Segmentasi
Dim w(400, 400) As Integer
Dim s(10, 10) As Integer
Dim i As Long, j As Long, A As Integer
Dim r As Integer, G As Integer, b As Integer
Dim R2 As Integer, G2 As Integer, B2 As Integer
Dim c As Long, c2 As Long
Dim t As Integer
Dim n As Long, n1 As Long, n2 As Long
Dim warna As String
Dim kelldp As Long, luasdp As Long, luasdp_awal As Long
Dim wx As Long, wx1 As Long, wx2 As Long
Dim s1 As Long        'sisi kiri
Dim s2 As Long        'sisi atas
Dim s3 As Long        'sisi kanan
Dim s4 As Long        'sisi bawah
Dim xmin1 As Long
Dim xmax1 As Long
```

```
Dim ymin1 As Long
Dim ymax1 As Long
Dim x As Long
Dim x11 As Long
Dim y11 As Long


'-------------------------------------------------
'Proses Untuk Gambar Sisi Depan
'-------------------------------------------------

Picture1.Cls
Picture2.Cls

t = 45
luasdp_awal = 0

Picture2.ScaleMode = vbPixels
Picture3.ScaleMode = vbTwips

Picture7.BackColor = Picture3.Point(Picture3.Width / 2, Picture3.Height / 2 -
500)

Picture3.ScaleMode = vbPixels

If Picture7.BackColor <> &H8000000F Then

Picture2.Cls

  For i = 0 To Picture3.ScaleWidth
     For j = 0 To Picture3.ScaleHeight

        c = GetPixel(Picture3.hDC, i, j)

        r = c Mod 256
        G = (c \ 256) Mod 256
        b = (c \ 256 \ 256) Mod 256

        c2 = Picture7.BackColor

        R2 = c2 Mod 256
        G2 = (c2 \ 256) Mod 256
        B2 = (c2 \ 256 \ 256) Mod 256


        If Abs(r - R2) < t And Abs(G - G2) < t And Abs(b - B2) < t Then
```

```
            SetPixel Picture2.hDC, i, j, RGB(r, G, b)
            SetPixel Picture1.hDC, i, j, RGB(r, G, b)

            luasdp_awal = luasdp_awal + 1
            'Text9.Text = luasdp_awal

          Else
            SetPixel Picture2.hDC, i, j, vbYellow
            SetPixel Picture1.hDC, i, j, vbYellow
          End If

      Next j

   Next i

End If

'scan koordinat
Picture2.ScaleMode = vbPixels
    For i = 5 To Picture2.ScaleWidth - 10
       For j = 5 To Picture2.ScaleHeight - 10

          warna = Picture2.Point(i, j)

          r = warna And RGB(255, 0, 0)
          G = Int((warna And RGB(0, 255, 0)) / 256)
          b = Int(Int((warna And RGB(0, 0, 255)) / 256) / 256)

          If r <> 255 And G <> 255 And b <> 0 Then

             List1.AddItem (i)
             List2.AddItem (j)

          End If

       Next j

    Next i


        xmin1 = Int(List1.List(0))
        'Text6.Text = xmin1

        xmax1 = Int(List1.List(0))
        'Text7.Text = xmax1

        ymin1 = Int(List2.List(0))
```

```
        'Text8.Text = ymin1

        ymax1 = Int(List2.List(0))
        'Text9.Text = ymax1

    For A = 0 To List1.ListCount - 1
       If xmin1 <= Int(List1.List(A)) Then
          xmin1 = xmin1 + 0
          'Text6.Text = xmin1
       Else

          xmin1 = Int(List1.List(A))
          'Text6.Text = xmin1
       End If
       'Text6.Text = xmin1 ' nilai xmin yang digunakan



       If xmax1 >= Int(List1.List(A)) Then
          xmax1 = xmax1 + 0
          'Text8.Text = xmax1
       Else

          xmax1 = Int(List1.List(A))
          'Text8.Text = xmax1
       End If
       'Text8.Text = xmax1 ' nilai xmax yang digunakan


       If ymin1 <= Int(List2.List(A)) Then
          ymin1 = ymin1 + 0
          'Text7.Text = ymin1
       Else

          ymin1 = Int(List2.List(A))
          'Text7.Text = ymin1
       End If
       'Text7.Text = ymin1 ' nilai xmax yang digunakan


       If ymax1 >= Int(List2.List(A)) Then
          ymax1 = ymax1 + 0
          'Text9.Text = ymax1
       Else

          ymax1 = Int(List2.List(A))
          'Text9.Text = ymax1
```

```
      End If
      'Text9.Text = ymax1 ' nilai xmax yang digunakan

   Next A

      s1 = ymax1 - ymin1
      s1 = s1 + 1
      'Text3.Text = s1

      s3 = s1
      'Text4.Text = s3

      s2 = xmax1 - xmin1
      s2 = s2 + 1
      'Text5.Text = s2

      s4 = s2
      'Text5.Text = s4

   Call testbentuk1(xmin1, xmax1, ymin1, ymax1, luasdp_awal)


If Label9.Caption = "persegi" Or Label9.Caption = "rectangle" Then

   Picture1.BackColor = vbYellow

   For i = 5 To Picture1.ScaleWidth - 5
      For j = 5 To Picture1.ScaleHeight - 5

      If i = xmin1 And j = ymin1 Then

            For x11 = xmin1 To xmax1
               For y11 = ymin1 To ymax1
                  Picture1.PSet (x11, y11), vbRed
               Next y11
            Next x11

      GoTo a11

         End If

      Next j
   Next i

ElseIf Label9.Caption = "lingkaran" Then
```

```
        Picture1.BackColor = vbYellow
        Picture1.FillStyle = vbFSSolid
        Picture1.FillColor = vbRed
        Picture1.Circle (160, 120), Int(s2 / 2), vbRed

Else
    MsgBox "Obyek Harus Berupa Kubus, Balok, atau Bola (581)!!!" & vbCrLf &
"Silahkan Ulangi!", vbOKOnly, "Peringatan!!!"
    GoTo 1
End If


a11:
'Konversi Biner( Hit luas )

luasdp = 0
For i = 5 To Picture1.ScaleWidth - 5
    For j = 5 To Picture1.ScaleHeight - 5

        warna = Picture1.Point(i, j)

        r = warna And RGB(255, 0, 0)
        G = Int((warna And RGB(0, 255, 0)) / 256)
        b = Int(Int((warna And RGB(0, 0, 255)) / 255) / 256)

        x = (r + G + b) / 3
        If x < 128 Then x = 0 Else x = 255

        'Picture1.PSet (i, j), RGB(x, x, x)

        If x = 0 Then
            luasdp = luasdp + 1
            'Text9.Text = luasdp
        End If

    Next j
Next i


'Deteksi Tepi ( Hit Kell )
kelldp = 0
n1 = 0
For i = 0 To Picture1.ScaleWidth
    n1 = n1 + 1
    n2 = 0
    For j = 1 To Picture1.ScaleHeight
```

```
        warna = Picture1.Point(i, j)

        r = warna And RGB(255, 0, 0)
        G = Int((warna And RGB(0, 255, 0)) / 256)
        b = Int(Int((warna And RGB(0, 0, 255)) / 255) / 256)

        wx = Int((r + G + b) / 3)
        'Picture2.PSet (i, j), RGB(wx, wx, wx)
        n2 = n2 + 1
        w(n1, n2) = wx

    Next j
Next i

'Picture1.ScaleMode = vbTwips

For i = 5 To n1 - 5
    For j = 5 To n2 - 5
        If i = 1 Then wx1 = w(i, j) Else wx1 = w(i, j) - w(i - 1, j)
        If j = 1 Then wx2 = w(i, j) Else wx2 = w(i, j) - w(i, j - 1)

        wx = Abs(wx1) + Abs(wx2)

        'Picture2.PSet ((i - 1) * 15 + 1, (j - 1) * 15 + 1), RGB(wx, wx, wx)

            If wx <> 0 And wx > 5 Then
                'Picture2.PSet ((i - 1) * 15 + 1, (j - 1) * 15 + 1), RGB(255, 255, 255)
                kelldp = kelldp + 1
            End If

    Next j
Next i

        kelldp = kelldp + 1
        'Text8.Text = kelldp

        List3.List(0) = luasdp
        List3.List(1) = kelldp
        List3.List(2) = s1
        List3.List(3) = s2
        List3.List(4) = s3
        List3.List(5) = s4

1:
End Sub
```

```
Private Sub Cmd_sisikanan_Click()

Dim w(400, 400) As Integer
Dim i As Long, j As Long, A As Integer
Dim r As Integer, G As Integer, b As Integer
Dim R2 As Integer, G2 As Integer, B2 As Integer
Dim c As Long, c2 As Long
Dim t As Integer
Dim n As Long, n1 As Long, n2 As Long
Dim warna As String
Dim kellkn As Long, luaskn As Long, luaskn_awal As Long
Dim wx As Long, wx1 As Long, wx2 As Long
Dim s1 As Long          'sisi kiri
Dim s2 As Long          'sisi atas
Dim s3 As Long          'sisi kanan
Dim s4 As Long          'sisi bawah
Dim xmin4 As Long
Dim xmax4 As Long
Dim ymin4 As Long
Dim ymax4 As Long
Dim x As Long
Dim x4 As Long
Dim y4 As Long

'-------------------------------------------------
'Proses Untuk Gambar Sisi Kanan
'-------------------------------------------------

Picture1.Cls
Picture2.Cls
List1.Clear
List2.Clear

t = 45
luaskn_awal = 0

Picture2.ScaleMode = vbPixels
Picture6.ScaleMode = vbTwips

Picture7.BackColor = Picture6.Point(Picture6.Width / 2, Picture6.Height / 2 -
500)

Picture6.ScaleMode = vbPixels

If Picture7.BackColor <> &H8000000F Then

Picture2.Cls
```

```
  For i = 0 To Picture6.ScaleWidth
     For j = 0 To Picture6.ScaleHeight

        c = GetPixel(Picture6.hDC, i, j)

        r = c Mod 256
        G = (c \ 256) Mod 256
        b = (c \ 256 \ 256) Mod 256

        c2 = Picture7.BackColor

        R2 = c2 Mod 256
        G2 = (c2 \ 256) Mod 256
        B2 = (c2 \ 256 \ 256) Mod 256

        If Abs(r - R2) < t And Abs(G - G2) < t And Abs(b - B2) < t Then

          SetPixel Picture2.hDC, i, j, RGB(r, G, b)

          luaskn_awal = luaskn_awal + 1
          'Text9.Text = luaskn_awal

        Else
          SetPixel Picture2.hDC, i, j, vbYellow
        End If

     Next j

  Next i
  End If

'scan koordinat
Picture2.ScaleMode = vbPixels
   For i = 5 To Picture2.ScaleWidth - 10
      For j = 5 To Picture2.ScaleHeight - 10

         warna = Picture2.Point(i, j)

         r = warna And RGB(255, 0, 0)
         G = Int((warna And RGB(0, 255, 0)) / 256)
         b = Int(Int((warna And RGB(0, 0, 255)) / 256) / 256)

         If r <> 255 And G <> 255 And b <> 0 Then


            List1.AddItem (i)
            List2.AddItem (j)
```

```
        End If

    Next j

Next i

    xmin4 = Int(List1.List(0))
    'Text6.Text = xmin4

    xmax4 = Int(List1.List(0))
    'Text7.Text = xmax4

    ymin4 = Int(List2.List(0))
    'Text8.Text = ymin4

    ymax4 = Int(List2.List(0))
    'Text9.Text = ymax4


For A = 0 To List1.ListCount - 1
   If xmin4 <= Int(List1.List(A)) Then
      xmin4 = xmin4 + 0
      'Text6.Text = xmin4

   Else

      xmin4 = Int(List1.List(A))
      'Text6.Text = xmin4
   End If
   'Text6.Text = xmin4 ' nilai xmin yang digunakan


   If xmax4 >= Int(List1.List(A)) Then
      xmax4 = xmax4 + 0
      'Text8.Text = xmax4
   Else

      xmax4 = Int(List1.List(A))
      'Text8.Text = xmax4
   End If
   'Text8.Text = xmax4 ' nilai xmax yang digunakan
```

```
        If ymin4 <= Int(List2.List(A)) Then
           ymin4 = ymin4 + 0
           'Text7.Text = ymin4
        Else

           ymin4 = Int(List2.List(A))
           'Text7.Text = ymin4
        End If
        'Text7.Text = ymin4 ' nilai xmax yang digunakan


        If ymax4 >= Int(List2.List(A)) Then
           ymax4 = ymax4 + 0
           'Text9.Text = ymax4
        Else

           ymax4 = Int(List2.List(A))
           'Text9.Text = ymax4
        End If
        'Text9.Text = ymax4 ' nilai xmax yang digunakan

    Next A

        s1 = ymax4 - ymin4
        s1 = s1 + 1
        'Text3.Text = s1

        s3 = s1
        'Text4.Text = s3

        s2 = xmax4 - xmin4
        s2 = s2 + 1
        'Text5.Text = s2

        s4 = s2
        'Text5.Text = s4

    Call testbentuk1(xmin4, xmax4, ymin4, ymax4, luaskn_awal)


If Label9.Caption = "persegi" Or Label9.Caption = "rectangle" Then

    Picture1.BackColor = vbYellow

    For i = 5 To Picture1.ScaleWidth - 5
       For j = 5 To Picture1.ScaleHeight - 5
```

```
      If i = xmin4 And j = ymin4 Then

            For x4 = xmin4 To xmax4
               For y4 = ymin4 To ymax4
                  Picture1.PSet (x4, y4), vbRed 'RGB(255, 0, 0)
               Next y4
            Next x4

      GoTo a4

      End If

      Next j
   Next i

ElseIf Label9.Caption = "lingkaran" Then

      Picture1.BackColor = vbYellow

      Picture1.FillStyle = vbFSSolid
      Picture1.FillColor = vbRed
      Picture1.Circle (160, 120), Int(s2 / 2), vbRed

Else
   MsgBox "Obyek Harus Berupa Kubus, Balok, atau Bola (888)!!!" & vbCrLf &
"Silahkan Ulangi!", vbOKOnly, "Peringatan!!!"
   GoTo 1
End If

a4:
'Konversi Biner( Hit luas )

luaskn = 0
For i = 5 To Picture1.ScaleWidth - 5

   For j = 5 To Picture1.ScaleHeight - 5

      warna = Picture1.Point(i, j)

      r = warna And RGB(255, 0, 0)
      G = Int((warna And RGB(0, 255, 0)) / 256)
      b = Int(Int((warna And RGB(0, 0, 255)) / 255) / 256)

      x = (r + G + b) / 3
      If x < 128 Then x = 0 Else x = 255

      'Picture1.PSet (i, j), RGB(x, x, x)
```

```
        If x = 0 Then
           luaskn = luaskn + 1
           'Text9.Text = luaskn
        End If


    Next j

Next i


'Deteksi Tepi ( Hit Kell )
kellkn = 0
n1 = 0
For i = 1 To Picture1.ScaleWidth
    n1 = n1 + 1
    n2 = 0
    For j = 1 To Picture1.ScaleHeight

        warna = Picture1.Point(i, j)

        r = warna And RGB(255, 0, 0)
        G = Int((warna And RGB(0, 255, 0)) / 256)
        b = Int(Int((warna And RGB(0, 0, 255)) / 255) / 256)

        wx = Int((r + G + b) / 3)

        n2 = n2 + 1
        w(n1, n2) = wx

    Next j
Next i

'Picture1.ScaleMode = vbTwips

For i = 5 To n1 - 5
    For j = 5 To n2 - 5
        If i = 1 Then wx1 = w(i, j) Else wx1 = w(i, j) - w(i - 1, j)
        If j = 1 Then wx2 = w(i, j) Else wx2 = w(i, j) - w(i, j - 1)

        wx = Abs(wx1) + Abs(wx2)

        'Picture2.PSet ((i - 1) * 15 + 1, (j - 1) * 15 + 1), RGB(wx, wx, wx)


           If wx <> 0 And wx > 5 Then
              'Picture2.PSet ((i - 1) * 15 + 1, (j - 1) * 15 + 1), RGB(255, 255, 255)
```

```
            kellkn = kellkn + 1
          End If

    Next j
Next i

        kellkn = kellkn + 1
        'Text8.Text = kellkn


        List6.List(0) = luaskn
        List6.List(1) = kellkn
        List6.List(2) = s1
        List6.List(3) = s2
        List6.List(4) = s3
        List6.List(5) = s4

1:
End Sub


Private Sub Cmd_sisikiri_Click()

Dim w(400, 400) As Integer
Dim i As Long, j As Long, A As Integer
Dim r As Integer, G As Integer, b As Integer
Dim R2 As Integer, G2 As Integer, B2 As Integer
Dim c As Long, c2 As Long
Dim t As Integer
Dim n As Long, n1 As Long, n2 As Long
Dim warna As String
Dim kellkr As Long, luaskr As Long, luaskr_awal As Long
Dim wx As Long, wx1 As Long, wx2 As Long
Dim s1 As Long 'sisi kiri
Dim s2 As Long 'sisi atas
Dim s3 As Long 'sisi kanan
Dim s4 As Long 'sisi bawah
Dim xmin2 As Long
Dim xmax2 As Long
Dim ymin2 As Long
Dim ymax2 As Long
Dim x As Long
Dim x22 As Long
Dim y22 As Long
```

```
'-------------------------------------------------
'Proses Untuk Gambar Sisi Kiri
'-------------------------------------------------

Picture1.Cls
Picture2.Cls
List1.Clear
List2.Clear

t = 45
luaskr_awal = 0

Picture2.Cls

Picture2.ScaleMode = vbPixels
Picture4.ScaleMode = vbTwips

Picture7.BackColor = Picture4.Point((Picture4.Width / 2), (Picture4.Height / 2) -
500)

Picture4.ScaleMode = vbPixels

If Picture7.BackColor <> &H8000000F Then

  For i = 0 To Picture4.ScaleWidth
    For j = 0 To Picture4.ScaleHeight

      c = GetPixel(Picture4.hDC, i, j)

      r = c Mod 256
      G = (c \ 256) Mod 256
      b = (c \ 256 \ 256) Mod 256

      c2 = Picture7.BackColor

      R2 = c2 Mod 256
      G2 = (c2 \ 256) Mod 256
      B2 = (c2 \ 256 \ 256) Mod 256

      If Abs(r - R2) < t And Abs(G - G2) < t And Abs(b - B2) < t Then

        SetPixel Picture2.hDC, i, j, RGB(r, G, b)

        luaskr_awal = luaskr_awal + 1
        'text9.Text = luaskr_awal

      Else
```

```
            SetPixel Picture2.hDC, i, j, vbYellow
          End If

      Next j

   Next i
   End If


'scan koordinat
For i = 5 To Picture2.ScaleWidth - 10
       For j = 5 To Picture2.ScaleHeight - 10

          warna = Picture2.Point(i, j)

          r = warna And RGB(255, 0, 0)
          G = Int((warna And RGB(0, 255, 0)) / 256)
          b = Int(Int((warna And RGB(0, 0, 255)) / 256) / 256)

          If r <> 255 And G <> 255 And b <> 0 Then

             List1.AddItem (i)
             List2.AddItem (j)

          End If


       Next j

    Next i


        xmin2 = Int(List1.List(0))
        'Text6.Text = xmin2

        xmax2 = Int(List1.List(0))
        'Text7.Text = xmax2

        ymin2 = Int(List2.List(0))
        'Text8.Text = ymin2

        ymax2 = Int(List2.List(0))
        'Text9.Text = ymax2


    For A = 0 To List1.ListCount - 1
       If xmin2 <= Int(List1.List(A)) Then
```

```
        xmin2 = xmin2 + 0
        'Text6.Text = xmin2

    Else

        xmin2 = Int(List1.List(A))
        'Text6.Text = xmin2
    End If
    'Text6.Text = xmin2 ' nilai xmin yang digunakan



    If xmax2 >= Int(List1.List(A)) Then
        xmax2 = xmax2 + 0
        'Text8.Text = xmax2
    Else

        xmax2 = Int(List1.List(A))
        'Text8.Text = xmax2
    End If
    'Text8.Text = xmax2' nilai xmax yang digunakan


    If ymin2 <= Int(List2.List(A)) Then
        ymin2 = ymin2 + 0
        'Text7.Text = ymin2
    Else

        ymin2 = Int(List2.List(A))
        'Text7.Text = ymin2
    End If
    'Text7.Text = ymin2 ' nilai xmax yang digunakan


    If ymax2 >= Int(List2.List(A)) Then
        ymax2 = ymax2 + 0
        'Text9.Text = ymax2
    Else

        ymax2 = Int(List2.List(A))
        'Text9.Text = ymax2
    End If
    'Text9.Text = ymax2 ' nilai xmax yang digunakan

Next A

    s1 = ymax2 - ymin2
```

```
        s1 = s1 + 1
        'Text6.Text = s1

        s3 = s1
        'Text4.Text = s3

        s2 = xmax2 - xmin2
        s2 = s2 + 1
        'Text7.Text = s2

        s4 = s2
        'Text10.Text = s4

    Call testbentuk1(xmin2, xmax2, ymin2, ymax2, luaskr_awal)


If Label9.Caption = "persegi" Or Label9.Caption = "rectangle" Then
Picture1.Cls

    Picture1.BackColor = vbYellow

    For i = 5 To Picture1.ScaleWidth - 5
        For j = 5 To Picture1.ScaleHeight - 5

        If i = xmin2 And j = ymin2 Then


              For x22 = xmin2 To xmax2
                  For y22 = ymin2 To ymax2
                     Picture1.PSet (x22, y22), vbRed 'RGB(255, 0, 0)
                  Next y22
               Next x22

        GoTo a22

        End If

        Next j
    Next i


ElseIf Label9.Caption = "lingkaran" Then

        Picture1.BackColor = vbYellow

        Picture1.FillStyle = vbFSSolid
        Picture1.FillColor = vbRed
```

```
        Picture1.Circle (160, 120), Int(s2 / 2), vbRed

Else
   MsgBox "Obyek Harus Berupa Kubus, Balok, atau Bola (1214)!!!" & vbCrLf
& "Silahkan Ulangi!", vbOKOnly, "Peringatan!!!"
   GoTo 1
End If

a22:

'Konversi Biner( Hit luas )

luaskr = 0
For i = 5 To Picture1.ScaleWidth - 5

   For j = 5 To Picture1.ScaleHeight - 5

      warna = Picture1.Point(i, j)

      r = warna And RGB(255, 0, 0)
      G = Int((warna And RGB(0, 255, 0)) / 256)
      b = Int(Int((warna And RGB(0, 0, 255)) / 255) / 256)

      x = (r + G + b) / 3
      If x < 128 Then x = 0 Else x = 255

      'Picture1.PSet (i, j), RGB(x, x, x)

      If x = 0 Then
         luaskr = luaskr + 1
         'Text9.Text = luaskr
      End If


   Next j

Next i


'Deteksi Tepi ( Hit Kell )
kellkr = 0
n1 = 0
For i = 1 To Picture1.ScaleWidth
   n1 = n1 + 1
   n2 = 0
   For j = 1 To Picture1.ScaleHeight
```

```
        warna = Picture1.Point(i, j)

        r = warna And RGB(255, 0, 0)
        G = Int((warna And RGB(0, 255, 0)) / 256)
        b = Int(Int((warna And RGB(0, 0, 255)) / 255) / 256)

        wx = Int((r + G + b) / 3)

        n2 = n2 + 1
        w(n1, n2) = wx

    Next j
Next i

'Picture1.ScaleMode = vbTwips

For i = 5 To n1 - 5
    For j = 5 To n2 - 5
        If i = 1 Then wx1 = w(i, j) Else wx1 = w(i, j) - w(i - 1, j)
        If j = 1 Then wx2 = w(i, j) Else wx2 = w(i, j) - w(i, j - 1)

        wx = Abs(wx1) + Abs(wx2)

        'Picture2.PSet ((i - 1) * 15 + 1, (j - 1) * 15 + 1), RGB(wx, wx, wx)


            If wx <> 0 And wx > 5 Then
                'Picture2.PSet ((i - 1) * 15 + 1, (j - 1) * 15 + 1), RGB(255, 255, 255)
                kellkr = kellkr + 1
            End If

    Next j
Next i

            kellkr = kellkr + 1 ' kell yg didpt dari deteksi tepi, hasilnya kurang 1 pix
            'Text8.Text = kellkr

    List4.List(0) = luaskr
    List4.List(1) = kellkr
    List4.List(2) = s1
    List4.List(3) = s2
    List4.List(4) = s3
    List4.List(5) = s4

1:
End Sub
```

```
Private Sub Cmdkell_click()

Dim y As String

y = InputBox("Masukan sisi yang ingin di ketahui kelilingnya!!" & vbCrLf &
"(Ex :depan, belakang, kiri, atau kanan)", "Input Sisi", "depan")

If y = "depan" Then

   Text5.Text = List3.List(1)

ElseIf y = "belakang" Then

   Text5.Text = List5.List(1)

ElseIf y = "kiri" Then

   Text5.Text = List4.List(1)

ElseIf y = "kanan" Then

   Text5.Text = List6.List(1)

Else
   MsgBox "Silahkan masukan nama sisi sesuai contoh!" & vbCrLf & "Silahkan
Ulangi!!", vbOKOnly, "Peringatan!!!"
   GoTo 1
End If


1:
End Sub

Private Sub cmdluas_sisi_Click()

Dim x As String

x = InputBox("Masukan sisi yang ingin di ketahui luasnya!!" & vbCrLf & "(Ex
:depan, belakang, kiri, atau kanan)", "Input Sisi", "depan")

If x = "depan" Then

   Text4.Text = List3.List(0)

ElseIf x = "belakang" Then

   Text4.Text = List5.List(0)
```

```
ElseIf x = "kiri" Then

   Text4.Text = List4.List(0)

ElseIf x = "kanan" Then

   Text4.Text = List6.List(0)

Else
   MsgBox "Nama sisi yang dimasukan tidak sesuai contoh!" & vbCrLf &
"Silahkan Ulangi!!", vbOKOnly, "Peringatan!!!"
   GoTo 1
End If


1:
End Sub


Private Sub Cmdluaspermukaan_Click()

Dim kelldp1 As Single, kellkr1 As Single, kellblk1 As Single, kellkn1 As Single
Dim luasdp1 As Single, luaskr1 As Single, luasblk1 As Single, luaskn1 As Single
Dim dp1 As Single, dp2 As Single, kr1 As Single, kr2 As Single
Dim blk1 As Single, blk2 As Single, kn1 As Single, kn2 As Single
Dim luas1 As Single, luas2 As Single, luas3 As Single
Dim kell1 As Single, kell2 As Single, kell3 As Single
Dim l1 As Single, l2 As Single, l3 As Single
Dim s1a As Single, s2a As Single
Dim s1b As Single, s2b As Single
Dim s1c As Single, s2c As Single
'Dim sk1 As Single, sk2 As Single, sk3 As Single

luasdp1 = Val(List3.List(0))
kelldp1 = Val(List3.List(1))

luasblk1 = Val(List5.List(0))
kellblk1 = Val(List5.List(1))

luaskr1 = Val(List4.List(0))
kellkr1 = Val(List4.List(1))

luaskn1 = Val(List6.List(0))
kellkn1 = Val(List6.List(1))
```

```
'membandingkan luas depan dan belakang

If luasdp1 > luasblk1 Then

   dp1 = luasdp1 - (0.1 * luasdp1)

   If luasblk1 >= dp1 Then

      luas1 = luasdp1
      kell1 = kelldp1
      'Text6.Text = luas1
      'Text7.Text = kell1
      "'s1a = Val(List3.List(2))
      "'s2a = Val(List3.List(3))

   Else
    MsgBox "Obyek Harus Berupa Kubus, Balok, atau Bola (1375)!!!" & vbCrLf
& "Silahkan Ulangi!", vbOKOnly, "Peringatan!!!"
   GoTo 1

   End If

ElseIf  luasdp1 < luasblk1 Then

   blk1 = luasblk1 - (0.1 * luasblk1)

   If luasdp1 >= blk1 Then

      luas1 = luasblk1
      kell1 = kellblk1
      'Text3.Text = luas1
      'Text4.Text = kell1
      "'s1a = Val(List5.List(2))
      "'s2a = Val(List5.List(3))


   Else

   MsgBox "Obyek Harus Berupa Kubus, Balok, atau Bola (1389)!!!" & vbCrLf
& "Silahkan Ulangi!", vbOKOnly, "Peringatan!!!"
   GoTo 1

   End If

Else
   luas1 = luasdp1
   kell1 = kelldp1
```

```
    'Text3.Text = luas1
    'Text4.Text = kell1
    "'s1a = Val(List3.List(2))
    "'s2a = Val(List3.List(3))


End If



'membandingkan luas kiri dan kanan
If luaskr1 > luaskn1 Then

    kr1 = luaskr1 - (0.1 * luaskr1)

    If luaskn1 >= kr1 Then

        luas2 = luaskr1
        kell2 = kellkr1
        'Text3.Text = luas2
        'Text4.Text = kell2
        "'s1b = Val(List4.List(2))
        "'s2b = Val(List4.List(3))

    Else

    MsgBox "Obyek Harus Berupa Kubus, Balok, atau Bola (1412)!!!" & vbCrLf
& "Silahkan Ulangi!", vbOKOnly, "Peringatan!!!"
    GoTo 1

    End If

ElseIf luaskr1 < luaskn1 Then

    kn1 = luaskn1 - (0.1 * luaskn1)

    If luaskr1 >= kn1 Then

        luas2 = luaskn1
        kell2 = kellkn1
        'Text8.Text = luas2
        'Text9.Text = kell2
        "'s1b = Val(List6.List(2))
        "'s2b = Val(List6.List(3))
```

```
    Else

    MsgBox "Obyek Harus Berupa Kubus, Balok, atau Bola (1463)!!!" & vbCrLf
& "Silahkan Ulangi!", vbOKOnly, "Peringatan!!!"
    GoTo 1

    End If

Else
    luas2 = luaskr1
    kell2 = kellkr1
    'Text3.Text = luas2
    'Text4.Text = kell2
    "'s1b = Val(List4.List(2))
    "'s2b = Val(List4.List(3))

End If


"'Membandingkan luas depan dan luas kiri
If luas1 > luas2 Then

    l1 = luas1 - (0.1 * luas1)


    If luas2 >= l1 Then

        luas3 = luas1
        kell3 = kell1
        Text6.Text = luas3
        Text7.Text = kell3

        Call hitungluas1(kell1, luas1)


    Else

        Call hitungluas2(kell1, kell2, luas1, luas2)

    End If


ElseIf luas1 < luas2 Then

    l2 = luas2 - (0.1 * luas2)

    If luas1 >= l2 Then
```

```
        luas3 = luas2
        kell3 = kell2
        Text6.Text = luas3
        Text7.Text = kell3
        "'s1c = s1b
        "'s2c = s2b

        Call hitungluas1(kell2, luas2)

    Else

        Call hitungluas2(kell1, kell2, luas1, luas2)

    End If

Else

    luas3 = luas1
    kell3 = kell1

    Call hitungluas1(kell1, luas1)

End If

1:
End Sub


Private Sub Cmd_about_Click()

MsgBox "Karya Tugas Akhir" & vbCrLf & vbCrLf & "Alexander Christian" &
vbCrLf & "0322183" & vbCrLf & "Jurusan Teknik Elektro, Fakutas Teknik" &
vbCrLf & "Universitas Kristen Maranatha" & vbCrLf & "Bandung" & vbCrLf &
"2008" & vbCrLf & vbCrLf & "christiansthang@yahoo.com", vbOKOnly, "Data
Diri"
End Sub


Private Sub Cmd_stop_Click()

Unload Me

End Sub
```

```
Private Sub Cmd_capture_Click()
Dim x As Integer

For x = 1 To 4

   If x = 1 Then
   Picture3.Cls

      Call TWAIN_LogFile(0)
      Call TWAIN_SetHideUI(1)
      Call TWAIN_SetIndicators(0)
      Call TWAIN_SetFileAppendFlag(0)
      Call TWAIN_SetJpegQuality(100)

      If TWAIN_OpenSource("WIA-Logitech QuickCam IM/Connect") <> 0
         Then
         Call TWAIN_SetXferCount(1)
         ' If you can't use Me.hwnd, pass 0:
         Call TWAIN_AcquireToFilename(Me.hwnd, "c:\image1.bmp")
         End If

      If TWAIN_LastErrorCode() <> 0 Then
         Call TWAIN_ReportLastError("Unable to scan.")
      End If

   Picture3.Picture = LoadPicture("c:\image1.bmp")
      'GoTo 1

   ElseIf x = 2 Then
   Picture4.Cls

      Call Putar_Motor

      Call TWAIN_LogFile(0)
      Call TWAIN_SetHideUI(0)
      Call TWAIN_SetIndicators(0)
      Call TWAIN_SetFileAppendFlag(0)
      Call TWAIN_SetJpegQuality(100)
      If TWAIN_OpenSource("WIA-Logitech QuickCam IM/Connect") <> 0
         Then
         Call TWAIN_SetXferCount(1)
         ' If you can't use Me.hwnd, pass 0:
         Call TWAIN_AcquireToFilename(Me.hwnd, "c:\image2.bmp")
         End If
```

```
      If TWAIN_LastErrorCode() <> 0 Then
         Call TWAIN_ReportLastError("Unable to scan.")
      End If

   Picture4.Picture = LoadPicture("c:\image2.bmp")


   ElseIf x = 3 Then
   Picture5.Cls

      Call Putar_Motor

      Call TWAIN_LogFile(0)
      Call TWAIN_SetHideUI(0)
      Call TWAIN_SetIndicators(0)
      Call TWAIN_SetFileAppendFlag(0)
      Call TWAIN_SetJpegQuality(100)
      If TWAIN_OpenSource("WIA-Logitech QuickCam IM/Connect") <> 0
Then
         Call TWAIN_SetXferCount(1)
         ' If you can't use Me.hwnd, pass 0:
         Call TWAIN_AcquireToFilename(Me.hwnd, "c:\image3.bmp")
      End If

      If TWAIN_LastErrorCode() <> 0 Then
         Call TWAIN_ReportLastError("Unable to scan.")
      End If

   Picture5.Picture = LoadPicture("c:\image3.bmp")


   ElseIf x = 4 Then
   Picture6.Cls

      Call Putar_Motor

      Call TWAIN_LogFile(0)
      Call TWAIN_SetHideUI(0)
      Call TWAIN_SetIndicators(0)
      Call TWAIN_SetFileAppendFlag(0)
      Call TWAIN_SetJpegQuality(100)
      If TWAIN_OpenSource("WIA-Logitech QuickCam IM/Connect") <> 0
Then
         Call TWAIN_SetXferCount(1)
         ' If you can't use Me.hwnd, pass 0:
         Call TWAIN_AcquireToFilename(Me.hwnd, "c:\image4.bmp")
      End If
```

```
        If TWAIN_LastErrorCode() <> 0 Then
           Call TWAIN_ReportLastError("Unable to scan.")
        End If

    Picture6.Picture = LoadPicture("c:\image4.bmp")


    Else

    MsgBox "Ulangi Proses Capture" & vbCrLf & "OK!?", vbOKOnly, "Achtung
Achtung!!!"

    End If

Next x

1:
End Sub


Function luaskubus(kell As Single) As Single

Dim s As Long
Dim vol As Single
Const nk As Single = 12.42

    s = ((kell / 4) / nk)

    vol = s ^ 3
    Text3.Text = vol

    luaskubus = (6 * s * s)


End Function


Function luasbalok(p As Long, l As Long, t As Long) As Single

Const nk As Single = 12.42
Dim p1 As Single
Dim l1 As Single
Dim t1 As Single
Dim vol As Single
```

```
p1 = (p / nk)
l1 = (l / nk)
t1 = (t / nk)

vol = p1 * l1 * t1
Text3.Text = vol

luasbalok = (2 * ((p1 * l1) + (p1 * t1) + (l1 * t1)))


End Function


Function luasbalok1(luaspersegi As Single, kellpersegi As Single, l As Single) As
Single

Const nk As Single = 12.42
Dim p2 As Single
Dim l2 As Single
Dim t2 As Single
Dim vol As Single

   p2 = ((kellpersegi / 4) / nk)

   l2 = (l / nk)

   t2 = p2


vol = p2 * l2 * t2
Text3.Text = vol

luasbalok1 = (2 * p2 * t2) + (4 * l2 * t2)


End Function


Function luasbalok2(luaspersegi As Single, kellpersegi As Single, p As Single) As
Single

Const nk As Single = 12.42
Dim p3 As Single
Dim l3 As Single
Dim t3 As Single
Dim vol As Single
```

```
    p3 = (p / nk)

    l3 = ((kellpersegi / 4) / nk)

    t3 = l3

vol = p3 * l3 * t3
Text3.Text = vol

luasbalok2 = (2 * l3 * t3) + (4 * p3 * t3)


End Function


Function luasbalok3(p As Single, l As Single, t As Single) As Single

Const nk As Single = 12.42
Dim p4 As Single
Dim l4 As Single
Dim t4 As Single
Dim vol As Single

p4 = (p / nk)
l4 = (l / nk)
t4 = (t / nk)

vol = p4 * l4 * t4
Text3.Text = vol

luasbalok3 = (2 * p4 * l4) + (2 * p4 * t4) + (2 * l4 * t4)


End Function


Function luasbola(diameter As Single) As Single

Const nk As Single = 12.42
Dim radius As Single
Dim vol As Single
Const pi As Single = 3.14159

    radius = ((diameter / 2) / nk)
```

```
vol = ((4 / 3) * pi * (radius ^ 3))
Text3.Text = vol

luasbola = 4 * pi * (radius ^ 2)


End Function


Private Sub Putar_Motor()

Dim w As Integer
w = 0


   Do
      w = w + 1
      Out 888, 1        'binari = 0001
      Tunda 45

      Out 888, 2        'binari = 0010
      Tunda 45

      Out 888, 4        'binari = 0100
      Tunda 45

      Out 888, 8        'binari = 1000
      Tunda 45
   Loop Until w = 3


End Sub


Private Sub testbentuk1(xmin As Long, xmax As Long, ymin As Long, ymax As
Long, area As Long)

Const pi As Single = 3.14159
Dim i As Long, j As Long, A As Integer
Dim r As Integer, G As Integer, b As Integer
Dim rg As Single, rg1 As Single
Dim cr As Single, cr1 As Single, sq As Single, sq1 As Single
Dim wx As Long, wx1 As Long, wx2 As Long
Dim lpg As Single, lby As Single, llk As Single, lpj As Single
Dim s1 As Single 'sisi kiri
Dim s2 As Single 'sisi atas
Dim x As Long
```

```
Dim warna As String

lby = 0
lby = area

s1 = ymax - ymin
s1 = s1 + 1


s2 = xmax - xmin
s2 = s2 + 1


If s2 <= s1 Then

   lpg = s2 ^ 2

   llk = pi * ((s2 / 2) ^ 2)

   lpj = s1 * s2


   sq = lpg - (0.1 * lpg)

   sq1 = lpg + (0.1 * lpg)


   cr = llk - (0.1 * llk)

   cr1 = llk + (0.1 * llk)


   rg = lpj - (0.1 * lpj)

   rg1 = lpj + (0.1 * lpj)



   If cr <= lby And lby <= cr1 Then

      Label9.Caption = "lingkaran"

   ElseIf sq <= lby And lby <= sq1 Then

      Label9.Caption = "persegi"

   ElseIf rg <= lby And lby <= rg1 Then
```

```
    Label9.Caption = "rectangle"

  Else
    Label9.Caption = "unknown"

  End If


Else

  lpg = s1 ^ 2

  llk = pi * ((s1 / 2) ^ 2)

  lpj = s1 * s2

  sq = lpg - (0.1 * lpg)

  sq1 = lpg + (0.1 * lpg)


  cr = llk - (0.1 * llk)

  cr1 = llk + (0.1 * llk)


  rg = lpj - (0.1 * lpj)

  rg1 = lpj + (0.1 * lpj)


  If cr <= lby And lby <= cr1 Then

    Label9.Caption = "lingkaran"

  ElseIf sq <= lby And lby <= sq1 Then

    Label9.Caption = "persegi"

  ElseIf rg <= lby And lby <= rg1 Then

    Label9.Caption = "rectangle"

  Else
    Label9.Caption = "unknown"
```

```
    End If

End If

End Sub


Private Sub hitungluas1(kelldpn As Single, luasdpn As Single)

Dim sf As Single
Dim sfppjg As Single
Dim n As Integer

Dim k As Single        '(perbandingan antara panjang dan lebar untuk permukaan
                       depan dan atau belakang (k = k1))

Dim k1 As Long         '(perbandingan antara panjang dan lebar untuk permukaan
                       depan dan atau belakang(k = k1))

Dim k2 As Long         '(perbandingan antara panjang dan lebar untuk permukaan
                       kiri dan atau kanan )
Dim s1 As Long         'sisi kiri
Dim s2 As Long          'sisi atas
Dim d As Single



        k = Val(List3.List(3)) / Val(List3.List(2))

        sf = ((kelldpn ^ 2) / luasdpn)


        sfppjg = ((4 * k) + 8 + (4 / k))
        sfppjg = Format(sfppjg, "#######.##")


    If (16 - (16 * 0.01)) <= sf And sf <= (16 + (16 * 0.01)) Then

       Text1.Text = "KUBUS"
       luaskubus (kelldpn)
       Text2.Text = luaskubus(kelldpn)
```

```
   ElseIf (sfppjg - (sfppjg * 0.01)) <= sf And sf <= (sfppjg + (sfppjg * 0.01)) Then

      s1 = Val(List3.List(2))

      s2 = Val(List3.List(3))

      Text1.Text = "BALOK"
      Text2.Text = luasbalok(s2, s2, s1)


   ElseIf ((4 * 3.14159) - (4 * 3.14159 * 0.2)) <= sf And sf <= (4 * 3.14159 + (4 *
3.14159 * 0.2)) Then

      Text1.Text = "BOLA"

      d = Val(List3.List(3))

      Call luasbola(d)
      Text2.Text = luasbola(d)



   Else

      MsgBox "Obyek Harus Berupa Kubus, Balok, atau Bola (4104)!!!" &
vbCrLf & "Silahkan Ulangi!", vbOKOnly, "Peringatan!!!"
      GoTo 1

   End If



1:
End Sub


Private Sub hitungluas2(kelldpn As Single, kellkiri As Single, luasdpn As Single,
luaskiri As Single)

Dim sfppjg1 As Single, sfppjg2 As Single
Dim sf1 As Single, sf2 As Single
Dim s1 As Single 'sisi kiri
Dim s2 As Single 'sisi atas
Dim s1a As Single 'sisi kiri
Dim s2a As Single 'sisi atas
Dim s1b As Single 'sisi kiri
Dim s2b As Single
```

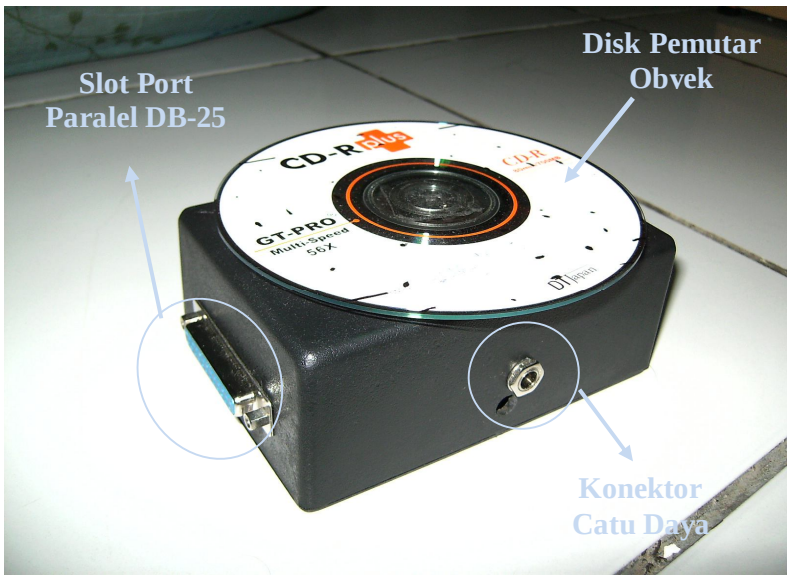
```
Dim k1 As Single
Dim k2 As Single

'-------------------------------------------------------------------------------------------
'Proses menghitung luas permukaan balok dengan sisi depan dan belakang berupa persegi,-
'sedangkan sisi kiri dan kanan berupa persegi panjang
'-------------------------------------------------------------------------------------------


   k1 = Val(List3.List(3)) / Val(List3.List(2))

   k2 = Val(List4.List(3)) / Val(List4.List(2))


   sf1 = (kelldpn ^ 2) / luasdpn
   sf1 = Format(sf1, "########.##")

   sf2 = (kellkiri ^ 2) / luaskiri
   sf2 = Format(sf2, "########.##")

   sfppjg1 = ((4 * k1) + 8 + (4 / k1))
   sfppjg1 = Format(sfppjg1, "#######.##")


   sfppjg2 = ((4 * k2) + 8 + (4 / k2))
   sfppjg2 = Format(sfppjg2, "#######.##")


   If (16 - (16 * 0.01)) <= sf1 And sf1 <= (16 + (16 * 0.01)) And (sfppjg2 -
(sfppjg2 * 0.1)) <= sf2 And sf2 <= (sfppjg2 + (sfppjg2 * 0.1)) Then

      s2 = Val(List4.List(3))

      Text1.Text = "BALOK1"
      Text2.Text = luasbalok1(luasdpn, kelldpn, s2)

'-------------------------------------------------------------------------------------------
'Proses menghitung luas permukaan balok dengan sisi depan dan belakang berupa persegi panjang,-
'sedangkan sisi kiri dan kanan berupa persegi
'-------------------------------------------------------------------------------------------
```

```
   ElseIf (sfppjg1 - (sfppjg1 * 0.1)) <= sf1 And sf1 <= (sfppjg1 + (sfppjg1 * 0.1))
And (16 - (16 * 0.01)) <= sf2 And sf2 <= (16 + (16 * 0.01)) Then


      s2 = Val(List3.List(3))

      Text1.Text = "BALOK2"
      Text2.Text = luasbalok2(luaskiri, kellkiri, s2)


'-------------------------------------------------------------------------------------------------
'Proses menghitung luas permukaan balok dengan sisi depan dan belakang berupa
persegi panjang,-
'serta sisi kiri dan kanan juga berupa persegi panjang
'-------------------------------------------------------------------------------------------------

   ElseIf (sfppjg1 - (sfppjg1 * 0.1)) <= sf1 And sf1 <= (sfppjg1 + (sfppjg1 * 0.1))
And (sfppjg2 - (sfppjg2 * 0.1)) <= sf2 And sf2 <= (sfppjg2 + (sfppjg2 * 0.1))
Then


      s2a = Val(List3.List(3))
      s2b = Val(List4.List(3))
      s1a = Val(List3.List(2))


      Text1.Text = "BALOK3"
      Text2.Text = luasbalok3(s2a, s2b, s1a)


   Else
   MsgBox "Bentuk Obyek harus Balok, Bola atau kubus (ln4200)" & vbCrLf &
"Good work!!!", vbOKOnly, "Peringatan!!!"

   End If

1:
End Sub
```

Modules :

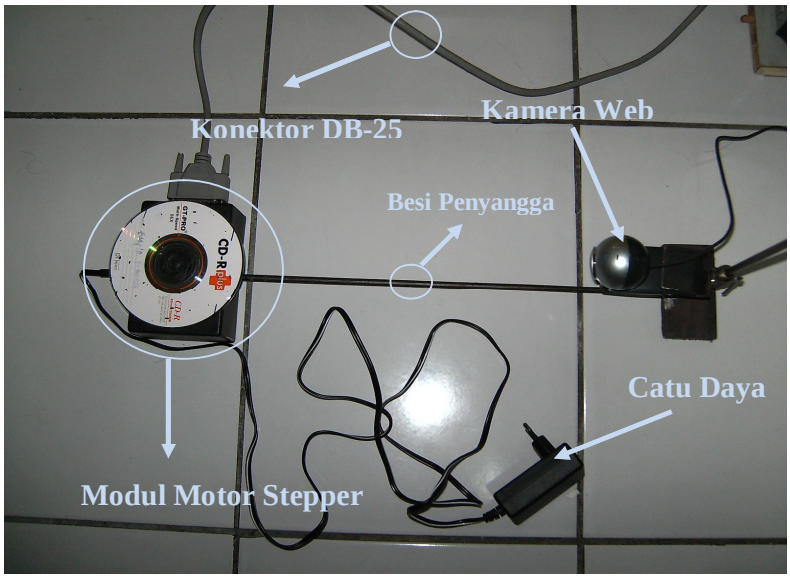
1. **EZTwain.bas**
2. **InpOut32.bas**
3. **Port_Out.bas**

LAMPIRAN B



Gambar B.1 Modul *Motor Stepper*

Gambar B.2 Catu Daya

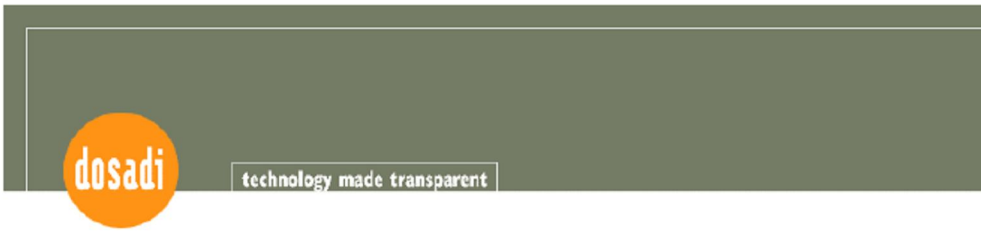


Gambar B.3 Alat Tampak Dari Atas

Gambar B.4 Alat Tampak Dari Samping Kiri

Gambar B.5 Alat Tampak Dari Samping Kanan

LAMPIRAN C



EZTwain Pro User Guide

A guide to the EZTwain library for developers.

Version 3.09

By Spike McLarty for Dosadi. Revised 1/27/2006 12:44 PM

TWAIN_LogFile

```
void TWAIN_LogFile(int fLog);
```

EZTwain can write a quite detailed log of its activity, including every TWAIN call it makes and the result. Log output goes to **c:\eztwain.log**. You can use TWAIN_SetLogFolder to direct the log file to another directory.
TWAIN_LogFile(0) close log file and turn off logging
TWAIN_LogFile(1) open log file (if not already) and start logging.
If logging is already turned on, TWAIN_LogFile(1) flushes the logfile to disk so prior output won't be lost in a subsequent crash.

TWAIN_SetHideUI / TWAIN_GetHideUI

```
void TWAIN_SetHideUI(int fHide);
int TWAIN_GetHideUI(void);
```

These functions control the 'hide source user interface' flag. This flag is initially FALSE(0), but if you set it non-zero, then when a source is enabled it will be asked to hide its user interface. Note this is a request - some sources will ignore it.
See: How To: Hide the Datasource User Interface.
If the user interface is hidden, you will probably want to set at least some of the basic acquisition parameters yourself – see Negotiating Scanning Parameters . See also: HasControllableUI

TWAIN_SetIndicators

```
int TWAIN_SetIndicators(BOOL bVisible)
```

Tell the source to show (hide) progress indicators during acquisition.

TWAIN_OpenSource

```
int TWAIN_OpenSource(LPCSTR pzName);
```

Opens the Source with the given name.
If that source is already open, does nothing and returns TRUE. If another source is open, closes it and attempts to open the specified source. Will load and open the Source Manager if needed.
If this call returns TRUE, TWAIN is in State 4 (TWAIN_SOURCE_OPEN)

TWAIN_SetPixelType

```
int TWAIN_SetPixelType(int nPixType);
```

Try to set the current pixel type for acquisition.
The source may select this pixel type, but don't assume it will.
This function should be used in place of the older TWAIN_SetCurrentPixelType.

Pixel Type Codes (TWPT_*)

Code	TWAIN Name	Description
0	TWPT_BW	1-bit per pixel, black and white
1	TWPT_GRAY	grayscale, 8 or 4-bit
2	TWPT_RGB	RGB color, 24-bit (rarely, 15,16,32-bit)
3	TWPT_PALETTE	indexed color (image has a color table) 8 or 4-bit.
4	TWPT_CMY	CMY color, 24-bit
5	TWPT_CMYK	CMYK color, 32-bit

TWAIN_SetXferCount

```
int TWAIN_SetXferCount(int nXfers);
```

Tell the Source the number of images the application will accept.
nXfers = -1 means any number (the default, when a device is opened.)
Returns: 1 for success, 0 for failure.

TWAIN_SetAutoScan

```
int TWAIN_SetAutoScan(int fYes);
```

(Try to) turn on/off scan-ahead (CAP_AUTOSCAN). Returns TRUE(1) if successful, FALSE(0) otherwise.
This is an optional feature supported by some ADF scanners. When enabled, the scanner will scan pages before they are requested, buffering them in the scanner or host PC. When disabled, the scanner will not feed and scan a page until the application asks for it. Used to achieve maximum throughput on ADF scanners. **Note:** A few high-speed scanners (e.g. Kodak i200) have this capability permanently on – such scanners always scan all pages in the feeder once they start.

TWAIN_AcquireToFilename

```
int TWAIN_AcquireToFilename(HWND hwndApp, LPCSTR pszFile);
```

Acquire an image and save it to a file. If the filename contains a standard extension (.bmp, .jpg, .jpeg, .tif, .tiff, .png, .pdf, .gif, .dcx) then the file is saved in the implied format. Otherwise the file is saved in the default save format– see TWAIN_SetSaveFormat.
If pszFile is NULL or an empty string, the user is prompted for the file name and format with a standard Save File dialog. Only available and appropriate formats are presented in the Save File dialog. If you use this feature, you can call TWAIN_LastOutputFile to obtain the filename.
See also TWAIN_Acquire below.
Return values:
0 success.
-1 the Acquire failed.
-2 file open error (invalid path or name, or access denied)
-3 invalid DIB, or image incompatible with file format, or...
-4 writing failed, possibly output device is full.
-10 user cancelled File Save dialog
The minimal use of EZTwain is to call this function with null arguments:

```
ErrCode = TWAIN_AcquireToFilename(0, "");
```

TWAIN_LastErrorCode

```
int TWAIN_LastErrorCode(void);
```

Return the most recent EZTwain error code, one of the EZTEC_ codes – See the EZTwain declaration file for your programming language, or refer to eztwain.h.

TWAIN_ReportLastError

```
void TWAIN_ReportLastError(LPCSTR pzMsg);
```

Like TWAIN_ErrorBox, but if some details are available from TWAIN about the last failure, they are included in the message box. This function uses TWAIN_LastErrorText to find out about the last error – see below.

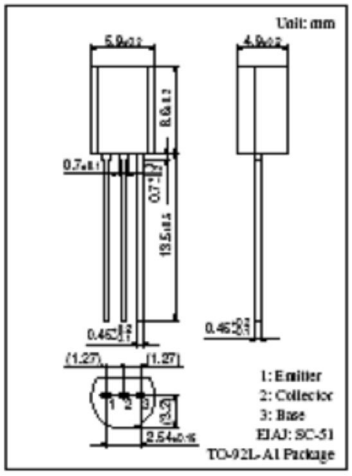
LAMPIRAN D

Transistors **Panasonic**

2SC1383, 2SC1384

Silicon NPN epitaxial planar type

For low-frequency power amplification and driver amplification
Complementary to 2SA0683, 2SA0684



■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Complementary pair with 2SA0683, 2SA0684

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter		Symbol	Rating	Unit
Collector-base voltage (Emitter open)	2SC1383	V_{CBO}	30	V
	2SC1384		60	
Collector-emitter voltage (Base open)	2SC1383	V_{CEO}	25	V
	2SC1384		50	
Emitter-base voltage (Collector open)		V_{EBO}	5	V
Collector current		I_C	1	A
Peak collector current		I_{CP}	1.5	A
Collector power dissipation		P_C	1	W
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55 to +150	°C

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter		Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	2SC1383	V_{CBO}	I_C = 10 μA, I_E = 0	30			V
	2SC1384			60			
Collector-emitter voltage (Base open)	2SC1383	V_{CEO}	I_C = 2 mA, I_B = 0	25			V
	2SC1384			50			
Emitter-base voltage (Collector open)		V_{EBO}	I_E = 10 μA, I_C = 0	5			V
Collector-base cutoff current (Emitter open)		I_{CBO}	V_{CB} = 20 V, I_E = 0			0.1	μA
Forward current transfer ratio *1		h_{FE1} *2	V_{CE} = 10 V, I_C = 500 mA	85		340	—
		h_{FE2}	V_{CE} = 5 V, I_C = 1 A	50			—
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C = 500 mA, I_B = 50 mA		0.2	0.4	V
Base-emitter saturation voltage		$V_{BE(sat)}$	I_C = 500 mA, I_B = 50 mA		0.85	1.20	V
Transition frequency		f_T	V_{CB} = 10 V, I_E = −50 mA, f = 200 MHz		200		MHz
Collector output capacitance (Common base, input open circuited)		C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1 MHz		11	20	pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *1: Pulse measurement
*2: Rank classification

Rank	Q	R	S
h_{FE1}	85 to 170	120 to 240	170 to 340

Publication date: March 2003 SJC00104CED