LAMPIRAN A: LISTING PROGRAM

1. Form Reduksi Aritmetik (AMF) Noise

Dim BC
Dim AA, BB, AAA, BBB As Integer
Dim JB

Private Declare Function SetPixel Lib "gdi32" (ByVal hdc As Long, ByVal X As Long, ByVal Y As Long, ByVal crColor As Long) As Long
Dim h(3, 3) As Single
Dim r, g, b, R2, G2, B2 As Integer
Dim R1 As Single
Dim G1 As Single
Dim B1 As Single
Dim NewColor As Long
Dim Gray1 As Single
Dim Gray2 As Single
Dim X1, Y1 As Single
Dim X2, Y2 As Single
Dim rsNO As Recordset
Dim rsCari As Recordset
Dim rsCari1 As Recordset
Dim rsCari2 As Recordset
Dim rsHasil As Recordset
Dim NoPixel1 As Single
Dim NoPixel2 As Single
Dim NilPixel1 As Single
Dim NilPixel2 As Single
Dim NilPixel3 As Single
Dim TNilPixel As Single
Dim MSE As Single
Dim no As Single
Dim NoPixel As Single
Dim Dimensi As Single
Dim NmFile1 As String, NmFile2 As String
Dim ID As Integer
Dim Ext1 As String * 3
Dim Ext2 As String * 3

Sub CariID()
Set rsCari = New ADODB.Recordset
rsCari.Open "Select * from tHasil order by ID desc", CN, 1, 2
If Not rsCari.EOF Then
    ID = rsCari!ID + 1
Else
    ID = 1
End If
Set rsCari = Nothing
End Sub

Sub GrayPic()
LblProses.Caption = "Sedang proses...."
Timer2.Enabled = True
Picture4.Visible = True
Picture4.Cls
Picture4.Picture = Picture2.Picture
Set rsNO = New ADODB.Recordset
rsNO.Open "tGrayKiri", CN, 1, 2

For X = 1 To Picture4.ScaleWidth
    DoEvents
    For Y = 1 To Picture4.ScaleHeight
        GET_COLORS Picture4.Point(X, Y), R1, G1, B1
        NoPixel = NoPixel + 1
        Gray1 = (R1 + G1 + B1) / 3
        If Gray1 > 255 Then
            Gray1 = 255
        ElseIf Gray1 < 0 Then
            Gray1 = 0
        End If
        Set j = lvHasil.ListItems.Add(, , NoPixel)
        j.SubItems(1) = NewColor
        j.SubItems(2) = Gray1
        If Gray1 < 128 Then
            rsNO.AddNew
            rsNO!NoPixel = NoPixel
            rsNO!Nilai = Gray1
            rsNO.Update
        End If
    Next Y
Next X
Set rsNO = Nothing
Picture4.Visible = False
End Sub

Sub GrayPic2()
    Set rsNO = New ADODB.Recordset
    rsNO.Open "tGrayKanan", CN, 1, 2

    For X = 1 To Picture5.ScaleWidth
        DoEvents
        For Y = 1 To Picture5.ScaleHeight
            GET_COLORS Picture5.Point(X, Y), R1, G1, B1
            NoPixel = NoPixel + 1
            Gray2 = (R1 + G1 + B1) / 3
            If Gray2 >= 255 Then
                Gray2 = 123
            ElseIf Gray2 < 0 Then
                Gray2 = 56
            End If
            If Gray2 < 124 Then
                If NoPixel < 5000 Then
                    rsNO.AddNew
                    rsNO!NoPixel = NoPixel
                    rsNO!Nilai = Gray2
                    rsNO.Update
                End If
            End If
        Next Y
    Next X
Set rsNO = Nothing
Picture5.Visible = False
End Sub

Sub Cari1()
    Set rsCari1 = New ADODB.Recordset
    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
    If Not rsCari1.EOF Then
        If rsCari1.Fields(0).Value = 123 Then
            rsCari1.Close
            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
            If Not rsCari1.EOF Then
                If rsCari1.Fields(1).Value = 123 Then
                    rsCari1.Close
                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                    If Not rsCari1.EOF Then
                        If rsCari1.Fields(2).Value = 123 Then
                            rsCari1.Close
                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                            If Not rsCari1.EOF Then
                                If rsCari1.Fields(3).Value = 123 Then
                                    rsCari1.Close
                                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                    If Not rsCari1.EOF Then
                                        If rsCari1.Fields(4).Value = 123 Then
                                            rsCari1.Close
                                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                            If Not rsCari1.EOF Then
                                                If rsCari1.Fields(5).Value = 123 Then
                                                    rsCari1.Close
                                                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                    If Not rsCari1.EOF Then
                                                        If rsCari1.Fields(6).Value = 123 Then
                                                            rsCari1.Close
                                                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                            If Not rsCari1.EOF Then
                                                                If rsCari1.Fields(7).Value = 123 Then
                                                                    rsCari1.Close
                                                                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                    If Not rsCari1.EOF Then
                                                                        If rsCari1.Fields(8).Value = 123 Then
                                                                            rsCari1.Close
                                                                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                            If Not rsCari1.EOF Then
                                                                                If rsCari1.Fields(9).Value = 123 Then
                                                                                    rsCari1.Close
                                                                                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                    If Not rsCari1.EOF Then
                                                                                        If rsCari1.Fields(10).Value = 123 Then
                                                                                            rsCari1.Close
                                                                                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                            If Not rsCari1.EOF Then
                                                                                                If rsCari1.Fields(11).Value = 123 Then
                                                                                                    rsCari1.Close
                                                                                                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                    If Not rsCari1.EOF Then
                                                                                                        If rsCari1.Fields(12).Value = 123 Then
                                                                                                            rsCari1.Close
                                                                                                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                            If Not rsCari1.EOF Then
                                                                                                                If rsCari1.Fields(13).Value = 123 Then
                                                                                                                    rsCari1.Close
                                                                                                                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                    If Not rsCari1.EOF Then
                                                                                                                        If rsCari1.Fields(14).Value = 123 Then
                                                                                                                            rsCari1.Close
                                                                                                                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                            If Not rsCari1.EOF Then
                                                                                                                                If rsCari1.Fields(15).Value = 123 Then
                                                                                                                                    rsCari1.Close
                                                                                                                                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                                    If Not rsCari1.EOF Then
                                                                                                                                        If rsCari1.Fields(16).Value = 123 Then
                                                                                                                                            rsCari1.Close
                                                                                                                                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                                            If Not rsCari1.EOF Then
                                                                                                                                                If rsCari1.Fields(17).Value = 123 Then
                                                                                                                                                    rsCari1.Close
                                                                                                                                                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                                                    If Not rsCari1.EOF Then
                                                                                                                                                        If rsCari1.Fields(18).Value = 123 Then
                                                                                                                                                            rsCari1.Close
                                                                                                                                                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                                                            If Not rsCari1.EOF Then
                                                                                                                                                                If rsCari1.Fields(19).Value = 123 Then
                                                                                                                                                                    rsCari1.Close
                                                                                                                                                                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                                                                    If Not rsCari1.EOF Then
                                                                                                                                                                        If rsCari1.Fields(20).Value = 123 Then
                                                                                                                                                                            rsCari1.Close
                                                                                                                                                                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                                                                            If Not rsCari1.EOF Then
                                                                                                                                                                                If rsCari1.Fields(21).Value = 123 Then
                                                                                                                                                                                    rsCari1.Close
                                                                                                                                                                                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                                                                                    If Not rsCari1.EOF Then
                                                                                                                                                                                        If rsCari1.Fields(22).Value = 123 Then
                                                                                                                                                                                            rsCari1.Close
                                                                                                                                                                                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                                                                                            If Not rsCari1.EOF Then
                                                                                                                                                                                                If rsCari1.Fields(23).Value = 123 Then
                                                                                                                                                                                                    rsCari1.Close
                                                                                                                                                                                                    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                                                                                                    If Not rsCari1.EOF Then
                                                                                                                                                                                                        If rsCari1.Fields(24).Value = 123 Then
                                                                                                                                                                                                            rsCari1.Close
                                                                                                                                                                                                            rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
                                                                                                                                            End If
                                                                                                                                        End If
                                                                                                                                    End If
                                                                                                                                End If
                                                                                                                            End If
                                                                                                                        End If
                                                                                                                    End If
                                                                                                                End If
                                                                                                            End If
                                                                                                        End If
                                                                                                    End If
                                                                                                End If
                                                                                            End If
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                                                                                End If
                                                                            End If
                                                                        End If
                                                                    End If
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                                                            End If
                                                        End If
                                                    End If
                                                End If
                                            End If
                                        End If
                                    End If
                                End If
                            End If
                        End If
                    End If
                End If
            End If
        End If
    End If
Next X
Set rsCari1 = Nothing
Picture5.Visible = False
End Sub
Do While Not rsCari1.EOF
    DoEvents
    NoPixel1 = rsCari1!NoPixel
    NilPixel1 = rsCari1!Nilai
    Set rsCari2 = New ADODB.Recordset
    rsCari2.Open "Select * from tGrayKanan where noPixel = " & NoPixel1 & ", CN, 1, 2"
    If Not rsCari2.EOF Then
        NoPixel2 = rsCari2!NoPixel
        NilPixel2 = rsCari2!Nilai
        If NoPixel1 = NoPixel2 Then
            NilPixel3 = Abs(NilPixel1 - NilPixel2)
            TNilPixel = TNilPixel + NilPixel3
            MSE = (1 / Dimensi) * ((TNilPixel) ^ 2)
            lblMSEMean.Caption = Format(MSE, "###.##")
        Else
            Exit Sub
        End If
    Else
        LblProses.Caption = "Sedang Proses...."
        Timer2.Enabled = True
        MsgBox "Proses selesai"
        Exit Sub
    End If
    Set rsCari2 = Nothing
    lblMSEMean.Caption = Format(MSE, "###.##")
    rsCari1.MoveNext
    If rsCari1.EOF Then
        Exit Do
    End If
Loop
End If
Set rsCari1 = Nothing
MsgBox "Proses selesai"
cmdSimpan.Enabled = True
salah:
    MsgBox "Proses selesai"
    Exit Sub
End Sub
Private Sub GET_Gray(COLOR As Long, ByRef Gray As Single)
    Gray = COLOR Mod 255
    If Gray > 255 Then
        Gray = 255
    Else
        Gray = 0
    End If
End Sub
Private Sub cmdBersih_Click()
    Picture1.Picture = Nothing
    Picture2.Picture = Nothing
    Picture3.Picture = Nothing
    Picture4.Picture = Nothing
    Picture4.Visible = False
    lblMSEMean.Caption = ""
    lblDimensi.Caption = ""
    lvlCitra.ListItems.Clear
lvHasil.ListItems.Clear
End Sub

Private Sub cmdBrowse_Click()
CM.CancelError = True
CM.Filter = "Format citra: ()|*.BMP;*.JPG|Bitmap
(*.JPG)|*.Bmp|Bitmap|Jpeg Images (*.JPG)|*.Jpg"
CM.ShowOpen
NmFile1 = CM.FileTitle
Ext1 = Right(NmFile1, 3)
Picture1.Picture = LoadPicture(CM.FileName)
Picture4.Picture = LoadPicture(CM.FileName)
Picture2.Picture = LoadPicture(CM.FileName)
Command1.Enabled = True
Exit Sub
End Sub

Private Sub cmdKeluar_Click()
Unload Me
End Sub

Private Sub cmdSimpan_Click()
CM.CancelError = True
CM.Filter = "Bitmap (*.BMP)|*.bmp"
CM.ShowSave
NmFile2 = CM.FileTitle
Ext2 = Right(NmFile2, 3)
SavePicture Picture3.Image, CM.FileName
Call CariID
Set rsHasil = New ADODB.Recordset
rsHasil.Open "tHasil", CN, 1, 2
rsHasil.AddNew
rsHasil!ID = ID
rsHasil!NmFile1 = RTrim(NmFile1)
rsHasil!NmFile2 = RTrim(NmFile2)
rsHasil!MSE = MSE
rsHasil!Ext1 = Ext1
rsHasil!Ext2 = Ext2
rsHasil!Algo = "1"
rsHasil.Update
Set rsHasil = Nothing
NmFile1 = ""
NmFile2 = ""
Timer1.Enabled = True
Picture4.Visible = False
MsgBox "File sudah disimpan"
Exit Sub
End Sub

Private Sub GET_COLORS(COLOR As Long, ByRef r As Single, ByRef g As Single, ByRef b As Single)
r = COLOR And RGB(255, 0, 0)
g = Int((COLOR And RGB(0, 255, 0)) / 256)
b = Int(Int((COLOR And RGB(0, 0, 255)) / 256) / 256)
NewColor = COLOR
If NewColor < 0 Then
    NewColor = 0
End If
If r > 256 Then
    r = 256
ElseIf r < 0 Then
    r = 0
End If
If g > 256 Then
    g = 256
ElseIf g < 0 Then
    g = 0
End If
If b > 256 Then
    b = 256
ElseIf b < 0 Then
    b = 0
End If
End Sub

Sub RGBCitraAsli()
    Timer2.Enabled = True
    lvCitra.ListItems.Clear
    For X = 1 To Picture4.ScaleWidth
        DoEvents
        For Y = 1 To Picture4.ScaleHeight
            GET_COLORS Picture4.Point(X, Y), R1, G1, B1
            NoPixel = NoPixel + 1
            Set j = lvCitra.ListItems.Add(, , NoPixel)
            j.SubItems(1) = NewColor
            j.SubItems(2) = R1
            j.SubItems(3) = G1
            j.SubItems(4) = B1
        Next Y
    Next X
    Dimensi = X * Y
    lblDimensi = Format(Dimensi, "###,###")
    Picture4.Visible = False
End Sub

Private Sub Command1_Click()
    Command1.Enabled = False
    Timer2.Enabled = True
    Picture4.Visible = True
    Call RGBCitraAsli
    probnoise = Val(Text1.Text)
    For i = 1 To Picture1.ScaleWidth Step 15
        n1 = n1 + 1
        n2 = 0
        For j = 1 To Picture1.ScaleHeight Step 15
            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)) / 256) / 256)
            wx = Int((r + g + b) / 3)
            n2 = n2 + 1
            wt(n1, n2) = wx
        Next j
    Next i
sw = Rnd
If sw < probnoise Then
    wx = 255
Else
    wx = wx
End If
If wx > 256 Then wx = 256
Picture2.PSet (i, j), RGB(wx, wx, wx)
nx = nx + Abs(wx1 - wx)
sx = sx + Abs(wx)
Next j
Next i
Timer1.Enabled = True
Command2.Enabled = True
End Sub

Private Sub Command2_Click()
    Command2.Enabled = False
    Dim xt(400, 400) As Integer
    n1 = 0
    Picture4.Visible = False

    For i = 1 To Picture1.ScaleWidth Step 15
        n1 = n1 + 1
        n2 = 0
        For j = 1 To Picture1.ScaleHeight Step 15
            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)
            n2 = n2 + 1
            wx = Int((r + g + b) / 3)
            xt(n1, n2) = wx
            Timer2.Enabled = True
            LblProses.Caption = "Sedang Proses...."
        Next j
    Next i

    For i = 1 To n1
        For j = 1 To n2
            z = 0
            For u1 = -1 To 1
                For u2 = -1 To 1
                    z = z + h(u1 + 2, u2 + 2) * xt(i + u1, j + u2)
                Next u2
            Next u1
            Picture3.PSet ((i - 1) * 15 + 1, (j - 1) * 15 + 1), RGB(z, z, z)
            nx = nx + Abs(z - wt(i, j))
            sx = sx + Abs(wt(i, j))
        Next j
    Next i

    Call GrayPic
    Call GrayPic2
    Picture3.ScaleMode = 1
    Picture3.Refresh
Timer2.Enabled = False
Timer1.Enabled = True
LblProses = ""
MsgBox "proses selesai"
cmdSimpan.Enabled = True
End Sub

Private Sub Form_Activate()
Picture4.Visible = False
Picture5.Visible = False
FrameSaving.Visible = True
Command2.Enabled = False
Command1.Enabled = False
cmdSimpan.Enabled = False
cmdbrowse.Enabled = True
cmdbrowse.SetFocus
End Sub

Private Sub Form_Load()
Call Koneksi
Randomize Timer
For i = 1 To 3
    For j = 1 To 3
        h(i, j) = 1 / 9
    Next j
Next i
End Sub

Private Sub Timer1_Timer()
FrameSaving.Visible = True
Bar1.Value = Bar1.Value + 10
lblSaving.Caption = Bar1.Value
If Bar1.Value = 100 Then
    Timer1.Enabled = False
    Bar1.Value = 0
End If
End Sub

Private Sub Timer2_Timer()
If LblProses.Visible = True Then
    LblProses.Visible = False
Else
    LblProses.Visible = True
End If
End Sub

2. Form Reduksi Noise Geometrik (GMF)

Dim BC
Dim AA, BB, AAA, BBB As Integer
Dim JB

Private Declare Function SetPixel Lib "gdi32" (ByVal hdc As Long, ByVal X As Long, ByVal Y As Long, ByVal crColor As Long) As Long
Dim wt(400, 400), r, g, b As Integer
Dim h(3, 3) As Single
Dim R1 As Single
Dim G1 As Single
Dim B1 As Single
Dim NewColor As Long
Dim R2, G2, B2, ID As Integer
Dim Gray1 As Single
Dim Gray2 As Single
Dim X1, Y1 As Single
Dim X2, Y2 As Single
Dim rsNO As Recordset
Dim rsCari As Recordset
Dim rsCari1 As Recordset
Dim rsCari2 As Recordset
Dim rsHasil As Recordset
Dim NoPixel1 As Single
Dim NoPixel2 As Single
Dim NilPixel1 As Single
Dim NilPixel2 As Single
Dim NilPixel3 As Single
Dim TNilPixel As Single
Dim MSE As Single
Dim no As Single
Dim NoPixel As Single
Dim Dimensi As Single
Dim NmFile1 As String, NmFile2 As String
Dim ID As Integer
Dim Ext1 As String * 3
Dim Ext2 As String * 3

Sub CariID()
    Set rsCari = New ADODB.Recordset
    rsCari.Open "Select * from tHasil order by ID desc", CN, 1, 2
    If Not rsCari.EOF Then
        ID = rsCari!ID + 1
    Else
        ID = 1
    End If
    Set rsCari = Nothing
End Sub

Sub GrayPic()
lblProses.Caption = "Sedang Proses...."
Timer2.Enabled = True
Picture4.Visible = True
Picture4.Cls
Picture4.Picture = Picture2.Picture

Set rsNO = New ADODB.Recordset
rsNO.Open "tGrayKiri", CN, 1, 2

For X = 1 To Picture4.ScaleWidth
    DoEvents
    For Y = 1 To Picture4.ScaleHeight
        GET_COLORS Picture4.Point(X, Y), R1, G1, B1
        NoPixel = NoPixel + 1
        Gray1 = (R1 + G1 + B1) / 3
        If Gray1 > 255 Then
            Gray1 = 255
        ElseIf Gray1 < 0 Then
            Gray1 = 0
        End If
        Set j = lvHasil.ListItems.Add(, , NoPixel)
        j.SubItems(1) = NewColor
    Next Y
    Next X
j.SubItems(2) = Gray1
If Gray1 < 128 Then
    rsNO.AddNew
    rsNO!NoPixel = NoPixel
    rsNO!Nilai = Gray1
    rsNO.Update
End If
Next Y
Next X
Set rsNO = Nothing
Picture4.Visible = False
End Sub

Sub GrayPic2()
    Set rsNO = New ADODB.Recordset
    rsNO.Open "tGrayKanan", CN, 1, 2
For X = 1 To Picture5.ScaleWidth
    DoEvents
    For Y = 1 To Picture5.ScaleHeight
        GET_COLORS Picture5.Point(X, Y), R1, G1, B1
        NoPixel = NoPixel + 1
        Gray2 = (R1 + G1 + B1) / 3
        If Gray2 >= 255 Then
            Gray2 = 123
        ElseIf Gray2 < 0 Then
            Gray2 = 56
        End If
        If Gray2 < 124 Then
            If NoPixel < 5000 Then
                rsNO.AddNew
                rsNO!NoPixel = NoPixel
                rsNO!Nilai = Gray2
                rsNO.Update
            End If
        End If
    Next Y
Next X
Set rsNO = Nothing
Picture5.Visible = False
Set rsCari1 = New ADODB.Recordset
    rsCari1.Open "Select * from tGrayKiri order by noPixel asc", CN, 1, 2
If Not rsCari1.EOF Then
    Do While Not rsCari1.EOF
        DoEvents
        NoPixel1 = rsCari1!NoPixel
        NilPixel1 = rsCari1!Nilai
        Set rsCari2 = New ADODB.Recordset
        rsCari2.Open "Select * from tGrayKanan where noPixel=" & NoPixel1 & ", CN, 1, 2
        noPixel=" & NoPixel1 & ", CN, 1, 2
        If Not rsCari2.EOF Then
            NoPixel2 = rsCari2!NoPixel
            NilPixel2 = rsCari2!Nilai
            If NoPixel1 = NoPixel2 Then
                NilPixel3 = Abs(NilPixel1 - NilPixel2)
                TNilPixel = TNilPixel + NilPixel3
            End If
        End If
    End While
End If
MSE = (1 / Dimensi) * ((TNilPixel) ^ 2)

Else
lblMSEMean.Caption = Format(MSE, "###.##")
End If
Else
Exit Sub
End If
Else
Exit Sub
End If

lblProses.Caption = "Sedang Proses...."
Timer2.Enabled = True
MsgBox "Proses selesai"
Exit Sub
End If
Set rsCari2 = Nothing
lblMSEMean.Caption = Format(MSE, "###.##")
rsCari1.MoveNext
If rsCari1.EOF Then
Exit Do
End If
Loop
End If
Set rsCari1 = Nothing
MsgBox "Proses selesai"
cmdSimpan.Enabled = True
Exit Sub
End Sub

Private Sub GET_Gray(COLOR As Long, ByRef Gray As Single)
Gray = COLOR Mod 255
If Gray > 255 Then
Gray = 255
Else
Gray = 0
End If
End Sub

Private Sub cmdBersih_Click()
Picture1.Picture = Nothing
Picture2.Picture = Nothing
Picture3.Picture = Nothing
Picture4.Picture = Nothing
Picture4.Visible = False
lblMSEMean.Caption = ""
lblMSEMean.Caption = ""
lblDimensi.Caption = ""
lblMSEMean.Caption = ""
lvCitra.ListItems.Clear
lvHasil.ListItems.Clear
End Sub

Private Sub cmdBrowse_Click()
CM.CancelError = True
CM.ShowOpen
NmFile1 = CM.FileTitle
Picture1.Picture = LoadPicture(CM.FileName)
Picture4.Picture = LoadPicture(CM.FileName)
Private Sub cmdKeluar_Click()
Unload Me
End Sub

Private Sub cmdSimpan_Click()
CmdSimpan.Enabled = False
CM.CancelError = True
CM.Filter = "Bitmap (*.BMP)|*.bmp"
CM.ShowSave
NmFile2 = CM.FileTitle
SavePicture Picture3.Image, CM.FileName
Call CariID
Set rsHasil = New ADODB.Recordset
    rsHasil.Open "tHasil", CN, 1, 2
    rsHasil.AddNew
    rsHasil!ID = ID
    rsHasil!NmFile1 = NmFile1
    rsHasil!NmFile2 = NmFile2
    rsHasil!MSE = MSE
    rsHasil!Algo = "2"
    rsHasil.Update
Set rsHasil = Nothing
NmFile1 = ""
NmFile2 = ""
Timer1.Enabled = True
Picture4.Visible = False
MsgBox "File sudah disimpan"
Exit Sub
End Sub

Private Sub GET_COLORS(COLOR As Long, ByRef r As Single, ByRef g As Single, ByRef b As Single)
    r = COLOR And RGB(255, 0, 0)
    g = Int((COLOR And RGB(0, 255, 0)) / 256)
    b = Int(Int((COLOR And RGB(0, 0, 255)) / 256) / 256)
    NewColor = COLOR
    If NewColor < 0 Then
        NewColor = 0
    End If
    If r > 256 Then
        r = 256
    ElseIf r < 0 Then
        r = 0
    End If
    If g > 256 Then
        g = 256
    ElseIf g < 0 Then
        g = 0
    End If
    If b > 256 Then
        b = 256
    End If
ElseIf b < 0 Then
    b = 0
End If
End Sub

Sub RGBCitraAsli()
    Timer2.Enabled = True
    lvCitra.ListItems.Clear
    For X = 1 To Picture4.ScaleWidth
        DoEvents
        For Y = 1 To Picture4.ScaleHeight
            GET_COLORS Picture4.Point(X, Y), R1, G1, B1
            NoPixel = NoPixel + 1
            Set j = lvCitra.ListItems.Add(, , NoPixel)
            j.SubItems(1) = NewColor
            j.SubItems(2) = R1
            j.SubItems(3) = G1
            j.SubItems(4) = B1
        Next Y
    Next X
    Dimensi = X * Y
    lblDimensi = Format(Dimensi, "###,###")
    Picture4.Visible = False
End Sub

Private Sub Command1_Click()
    Command1.Enabled = False
    Picture4.Visible = True
    Call RGBCitraAsli
    probnoise = Val(Text1.Text)
    For i = 1 To Picture1.ScaleWidth Step 15
        n1 = n1 + 1
        n2 = 0
        For j = 1 To Picture1.ScaleHeight Step 15
            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)) / 256) / 256)
            wx = Int((r + g + b) / 3)
            n2 = n2 + 1
            wt(n1, n2) = wx
            Picture1.PSet (i, j), RGB(wx, wx, wx)
            sw = Rnd
            While sw = 0
                X = 2 * Rnd - 1
                Y = Rnd
                If Y < Exp(-X ^ 2) Then
                    sw = X
                End If
            Wend
            If sw < probnoise Then
                wx = 255
            Else
                wx = wx
            End If
            If wx > 256 Then wx = 256
        Next j
    Next i
End Sub
Private Sub Command2_Click()
    Command2.Enabled = False
    Dim xt(400, 400) As Integer
    n1 = 0
    Dim Gray As Single
    Dim XGray As Single
    Dim TGray As Single
    Picture4.Visible = False
    For i = 1 To Picture1.ScaleWidth Step 15
        n1 = n1 + 1
        n2 = 0
        For j = 1 To Picture1.ScaleHeight Step 15
            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)
            wx = Int((r + g + b) / 3)
            xt(n1, n2) = wx
            Timer2.Enabled = True
            lblProses.Caption = "Sedang Proses...."
        Next j
    Next i
    For i = 1 To n1
        For j = 1 To n2
            DoEvents
            z = 0
            For u1 = -1 To 1
                For u2 = -1 To 1
                    z = z + h(u1 + 2, u2 + 2) * xt(i + u1, j + u2)
                Next u2
            Next u1
            Picture3.PSet ((i - 1) * 15 + 1, (j - 1) * 15 + 1), RGB(z, z, z)
            nx = nx + Abs(z - wt(i, j))
            sx = sx + Abs(wt(i, j))
        Next j
    Next i
    Call GrayPic
    Call GrayPic2
    Picture3.ScaleMode = 1
    Picture3.Refresh
    Timer2.Enabled = False
    Timer1.Enabled = True
    lblProses = ""
    MsgBox "proses selesai"
    cmdSimpan.Enabled = True
End Sub

Sub Geo()
Dim Lum(255), rP(255), gP(255), bP(255), mode, mY, mX, I, h, s As Integer
Dim df, r, g, b, ra2, ga2, ba2 As Integer
Dim a As Double
Dim m As Double
Dim Small As Boolean

r = rs - 256
g = gs - 256
b = bs - 256
ra2 = ra - 256
ga2 = ga - 256
ba2 = ba - 256

VScroll1 = 128
DoEvents
HScroll1 = 180
DoEvents
HScroll2 = 1

m = HScroll2 / 2
df = VScroll1 - 128

For i = 0 To 255
a = ((i / 255) * 360) * m
Picture4.PSet (i, 255 - i + h + ra2), vbRed
rP(i) = i + h + ra2
Next

End Sub

Private Sub Form_Activate()
Picture4.Visible = False
Picture5.Visible = False
FrameSaving.Visible = True
Command2.Enabled = False
Command1.Enabled = False
cmdSimpan.Enabled = False
cmdBrowse.Enabled = True
cmdBrowse.SetFocus

End Sub

Private Sub Form_Load()
Call Koneksi
Randomize Timer
For i = 1 To 3
For j = 1 To 3
h(i, j) = 1 / 10
Next j
Next i

End Sub

Private Sub Timer1_Timer()
FrameSaving.Visible = True
Bar1.Value = Bar1.Value + 10
lblSaving.Caption = Bar1.Value
If Bar1.Value = 100 Then
Timer1.Enabled = False

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Option Explicit
Dim Ext As String * 3
Dim rsCari As Recordset

Private Sub cmdCetak_Click()
Call Cetak
End Sub

Private Sub cmdQuit_Click()
Unload Me
End Sub

Private Sub Combo1_Click()
Set rsCari = New ADODB.Recordset
    rsCari.Open "Select * from tHasil where Ext1='' & Combo1.Text & 
" ", CN, 1, 2
    If Not rsCari.EOF Then
        cmdCetak.Enabled = True
        cmdCetak.SetFocus
    Else
        MsgBox "Data tidak ada"
        Combo1.SetFocus
    End If
    Set rsCari = Nothing
End Sub

Private Sub Form_Activate()
    Combo1.SetFocus
End Sub

Sub Cetak()
Me.WindowState = 2
cr.ReportFileName = App.Path & \
"\Report1.rpt"
cr.RetrieveDataFiles
    cr.Connect = "Provider=Microsoft.Jet.OLEDB.4.0;Data Source=\\ \
App.Path & \
"\dbNoise.mdb;Persist Security Info=False"
cr.SelectionFormula = "{tHasil.Ext1}='' & Combo1.Text & 
"
    cr.Formulas(0) = "Ext='' & Combo1.Text & 
"
    cr.WindowShowRefreshBtn = True
    cr.PrintReport
    cr.WindowState = crptMaximized
    cr.Action = 1
End Sub

Private Sub Form_Load()
Call Koneksi
End Sub

3. Form Laporan
Combo1.AddItem "BMP"
Combo1.AddItem "JPG"
End Sub

Private Sub Form_Unload(Cancel As Integer)
Unload Me
frmMenu.Show
End Sub

4. Form Menu

Dim j As Integer

Private Sub petunjuk_Click()
frmPetunjuk.Show
End Sub

Private Sub quit_Click()
End
End Sub

Private Sub Reduksi_NoiseAMF_Click()
frmReduksiNoiseAMF.Show
End Sub

Private Sub Reduksi_NoiseGMF_Click()
frmReduksiNoiseGMF.Show
End Sub

Private Sub reNos_Click()
frmLap.Show
End Sub

Private Sub Timer1_Timer()
Dim jud, jud1 As String
    jud = "PERBANDINGAN ALGORITMA ARITHMETIC DENGAN GEOMETRIC MEAN FILTER UNTUK REDUKSI NOISE PADA CITRA"
Label1.Caption = Left(jud, j)
Label2.Caption = Left(jud1, j)
If j = 1 Then
    Label1.ForeColor = vbBlue
ElseIf j > 10 Then
    Label1.ForeColor = vbBlue
Else
    Label1.ForeColor = vbBlue
End If
j = j + 1
If j > Len(jud) + 30 Then
    j = 1
End If
End Sub

5. Form Petunjuk

Private Sub cmdExit_Click()
Unload Me
End Sub