

APPENDIX CONTENTS

APPENDIX A Genetic Algorithm by Visual Basic. NET Code

#Region " Windows Form Designer generated code "

```
Public Sub New()  
    MyBase.New()
```

```
    'This call is required by the Windows Form Designer.  
    InitializeComponent()
```

```
    'Add any initialization after the InitializeComponent() call
```

```
End Sub
```

```
'Form overrides dispose to clean up the component list.
```

```
Protected Overrides Sub Dispose(ByVal disposing As Boolean)
```

```
    If disposing Then
```

```
        If Not (components Is Nothing) Then  
            components.Dispose()
```

```
        End If
```

```
    End If
```

```
    MyBase.Dispose(disposing)
```

```
End Sub
```

```
'Required by the Windows Form Designer
```

```
Private components As System.ComponentModel.IContainer
```

'NOTE: The following procedure is required by the Windows Form Designer

```
'It can be modified using the Windows Form Designer.
```

```
'Do not modify it using the code editor.
```

```
Friend WithEvents Button1 As System.Windows.Forms.Button
```

```
Friend WithEvents Label1 As System.Windows.Forms.Label
```

```
Friend WithEvents OleDbDataAdapter1 As
```

```
System.Data.OleDb.OleDbDataAdapter
```

```
Friend WithEvents OleDbConnection1 As
```

```
System.Data.OleDb.OleDbConnection
```

```
Friend WithEvents DataSet21 As WindowsApplication1.DataSet2
```

```
Friend WithEvents DG1 As System.Windows.Forms.DataGrid
```

```
Friend WithEvents PictureBox3 As System.Windows.Forms.PictureBox
```

```
Friend WithEvents GroupBox1 As System.Windows.Forms.GroupBox
```

```
Friend WithEvents LBvpije As System.Windows.Forms.Label
```

```
Friend WithEvents Lbc As System.Windows.Forms.Label
```

```
Friend WithEvents LBmaxq As System.Windows.Forms.Label
```

```
Friend WithEvents Label12 As System.Windows.Forms.Label
```

```
Friend WithEvents BTNreset As System.Windows.Forms.Button
```

```
Friend WithEvents LBvpiji As System.Windows.Forms.Label
```

```
Friend WithEvents LBs As System.Windows.Forms.Label
```

```
Friend WithEvents LBvmn As System.Windows.Forms.Label
```

```
Friend WithEvents TXvn As System.Windows.Forms.TextBox
```

```
Friend WithEvents TXvm As System.Windows.Forms.Label
```

```
Friend WithEvents Label7 As System.Windows.Forms.Label
```

```
Friend WithEvents Label6 As System.Windows.Forms.Label
```

```
Friend WithEvents BTNmaxq As System.Windows.Forms.Button
```

Friend WithEvents BTNmvm As System.Windows.Forms.Button
 Friend WithEvents PictureBox1 As System.Windows.Forms.PictureBox
 Friend WithEvents LBstime As System.Windows.Forms.Label
 Friend WithEvents Label14 As System.Windows.Forms.Label
 Friend WithEvents PictureBox2 As System.Windows.Forms.PictureBox
 Friend WithEvents GroupBox2 As System.Windows.Forms.GroupBox
 Friend WithEvents CBOXS As System.Windows.Forms.ComboBox
 Friend WithEvents CBOXE As System.Windows.Forms.ComboBox
 Friend WithEvents Label10 As System.Windows.Forms.Label
 Friend WithEvents Label9 As System.Windows.Forms.Label
 Friend WithEvents GBOXgraph As System.Windows.Forms.GroupBox
 Friend WithEvents BTNsmaxq As System.Windows.Forms.Button
 Friend WithEvents Label18 As System.Windows.Forms.Label
 Friend WithEvents BTNgapath As System.Windows.Forms.Button
 Friend WithEvents BTNgagraph As System.Windows.Forms.Button
 Friend WithEvents OleDbDataAdapter2 As
 System.Data.OleDb.OleDbDataAdapter
 Friend WithEvents OleDbSelectCommand2 As
 System.Data.OleDb.OleDbCommand
 Friend WithEvents OleDbInsertCommand2 As
 System.Data.OleDb.OleDbCommand
 Friend WithEvents OleDbUpdateCommand2 As
 System.Data.OleDb.OleDbCommand
 Friend WithEvents OleDbDeleteCommand2 As
 System.Data.OleDb.OleDbCommand
 Friend WithEvents OleDbConnection2 As
 System.Data.OleDb.OleDbConnection
 Friend WithEvents DataSet31 As WindowsApplication1.DataSet3
 Friend WithEvents Label2 As System.Windows.Forms.Label
 Friend WithEvents LBmin As System.Windows.Forms.Label
 Friend WithEvents Label15 As System.Windows.Forms.Label
 Friend WithEvents LBOXpath As System.Windows.Forms.ListBox
 Friend WithEvents LB As System.Windows.Forms.Label
 Friend WithEvents LBtime As System.Windows.Forms.Label
 Friend WithEvents Label As System.Windows.Forms.Label
 Friend WithEvents Label4 As System.Windows.Forms.Label
 Friend WithEvents TXtc As System.Windows.Forms.TextBox
 Friend WithEvents TXtv As System.Windows.Forms.TextBox
 Friend WithEvents BTNset As System.Windows.Forms.Button
 Friend WithEvents BTNdisaster As System.Windows.Forms.Button
 Friend WithEvents Label17 As System.Windows.Forms.Label
 Friend WithEvents GroupBox3 As System.Windows.Forms.GroupBox
 Friend WithEvents Label3 As System.Windows.Forms.Label
 Friend WithEvents TXr1 As System.Windows.Forms.TextBox
 Friend WithEvents TXr2 As System.Windows.Forms.TextBox
 Friend WithEvents TXr3 As System.Windows.Forms.TextBox
 Friend WithEvents Button2 As System.Windows.Forms.Button
 Friend WithEvents Label5 As System.Windows.Forms.Label
 Friend WithEvents TXd1 As System.Windows.Forms.TextBox
 Friend WithEvents TXd2 As System.Windows.Forms.TextBox
 Friend WithEvents TXd3 As System.Windows.Forms.TextBox
 Friend WithEvents DG2 As System.Windows.Forms.DataGrid
 Friend WithEvents Button3 As System.Windows.Forms.Button
 Friend WithEvents Label8 As System.Windows.Forms.Label
 Friend WithEvents TXG As System.Windows.Forms.TextBox
 Friend WithEvents Label19 As System.Windows.Forms.Label
 Friend WithEvents OleDbSelectCommand1 As
 System.Data.OleDb.OleDbCommand

```

Friend WithEvents OleDbInsertCommand1 As
System.Data.OleDb.OleDbCommand
Friend WithEvents OleDbUpdateCommand1 As
System.Data.OleDb.OleDbCommand
Friend WithEvents OleDbDeleteCommand1 As
System.Data.OleDb.OleDbCommand
Friend WithEvents Label11 As System.Windows.Forms.Label
Friend WithEvents Button4 As System.Windows.Forms.Button
Friend WithEvents Button5 As System.Windows.Forms.Button
<System.Diagnostics.DebuggerStepThrough()> Private Sub
InitializeComponent()
    Dim resources As System.Resources.ResourceManager = New
System.Resources.ResourceManager(GetType(Formtaipei))
    Me.Button1 = New System.Windows.Forms.Button
    Me.Label1 = New System.Windows.Forms.Label
    Me.OleDbDataAdapter1 = New
System.Data.OleDb.OleDbDataAdapter
    Me.OleDbDeleteCommand1 = New
System.Data.OleDb.OleDbCommand
    Me.OleDbConnection1 = New
System.Data.OleDb.OleDbConnection
    Me.OleDbInsertCommand1 = New
System.Data.OleDb.OleDbCommand
    Me.OleDbSelectCommand1 = New
System.Data.OleDb.OleDbCommand
    Me.OleDbUpdateCommand1 = New
System.Data.OleDb.OleDbCommand
    Me.DataSet21 = New WindowsApplication1.DataSet2
    Me.DG1 = New System.Windows.Forms.DataGrid
    Me.CBOXS = New System.Windows.Forms.ComboBox
    Me.CBOXE = New System.Windows.Forms.ComboBox
    Me.PictureBox3 = New System.Windows.Forms.PictureBox
    Me.GroupBox1 = New System.Windows.Forms.GroupBox
    Me.Label19 = New System.Windows.Forms.Label
    Me.BTNset = New System.Windows.Forms.Button
    Me.TXTv = New System.Windows.Forms.TextBox
    Me.TXTc = New System.Windows.Forms.TextBox
    Me.Label4 = New System.Windows.Forms.Label
    Me.Label = New System.Windows.Forms.Label
    Me.LBvpije = New System.Windows.Forms.Label
    Me.LBc = New System.Windows.Forms.Label
    Me.LBmaxq = New System.Windows.Forms.Label
    Me.Label12 = New System.Windows.Forms.Label
    Me.BTNreset = New System.Windows.Forms.Button
    Me.LBvpiji = New System.Windows.Forms.Label
    Me.LBs = New System.Windows.Forms.Label
    Me.LBvmn = New System.Windows.Forms.Label
    Me.TXTvn = New System.Windows.Forms.TextBox
    Me.TXTvm = New System.Windows.Forms.Label
    Me.Label7 = New System.Windows.Forms.Label
    Me.Label6 = New System.Windows.Forms.Label
    Me.BTNmaxq = New System.Windows.Forms.Button
    Me.BTNvmn = New System.Windows.Forms.Button
    Me.PictureBox1 = New System.Windows.Forms.PictureBox
    Me.LBstime = New System.Windows.Forms.Label
    Me.Label14 = New System.Windows.Forms.Label
    Me.PictureBox2 = New System.Windows.Forms.PictureBox
    Me.GroupBox2 = New System.Windows.Forms.GroupBox

```

```

Me.LBtime = New System.Windows.Forms.Label
Me.LB = New System.Windows.Forms.Label
Me.LBOXpath = New System.Windows.Forms.ListBox
Me.LBmin = New System.Windows.Forms.Label
Me.Label15 = New System.Windows.Forms.Label
Me.BTNgagraph = New System.Windows.Forms.Button
Me.Label10 = New System.Windows.Forms.Label
Me.Label9 = New System.Windows.Forms.Label
Me.BTNgapath = New System.Windows.Forms.Button
Me.Button3 = New System.Windows.Forms.Button
Me.GBOXgraph = New System.Windows.Forms.GroupBox
Me.Button4 = New System.Windows.Forms.Button
Me.Label11 = New System.Windows.Forms.Label
Me.BTNsmaxq = New System.Windows.Forms.Button
Me.Label18 = New System.Windows.Forms.Label
Me.BTNdisaster = New System.Windows.Forms.Button
Me.Label17 = New System.Windows.Forms.Label
Me.DG2 = New System.Windows.Forms.DataGrid
Me.DataSet31 = New WindowsApplication1.DataSet3
Me.OleDbDataAdapter2 = New
System.Data.OleDb.OleDbDataAdapter
Me.OleDbDeleteCommand2 = New
System.Data.OleDb.OleDbCommand
Me.OleDbConnection2 = New
System.Data.OleDb.OleDbConnection
Me.OleDbInsertCommand2 = New
System.Data.OleDb.OleDbCommand
Me.OleDbSelectCommand2 = New
System.Data.OleDb.OleDbCommand
Me.OleDbUpdateCommand2 = New
System.Data.OleDb.OleDbCommand
Me.Label2 = New System.Windows.Forms.Label
Me.GroupBox3 = New System.Windows.Forms.GroupBox
Me.TXG = New System.Windows.Forms.TextBox
Me.Label8 = New System.Windows.Forms.Label
Me.TXd3 = New System.Windows.Forms.TextBox
Me.TXd2 = New System.Windows.Forms.TextBox
Me.TXd1 = New System.Windows.Forms.TextBox
Me.Label5 = New System.Windows.Forms.Label
Me.Button2 = New System.Windows.Forms.Button
Me.TXr3 = New System.Windows.Forms.TextBox
Me.TXr2 = New System.Windows.Forms.TextBox
Me.TXr1 = New System.Windows.Forms.TextBox
Me.Label3 = New System.Windows.Forms.Label
Me.Button5 = New System.Windows.Forms.Button
CType(Me.DataSet21,
System.ComponentModel.ISupportInitialize).BeginInit()
CType(Me.DG1,
System.ComponentModel.ISupportInitialize).BeginInit()
Me.GroupBox1.SuspendLayout()
Me.GroupBox2.SuspendLayout()
Me.GBOXgraph.SuspendLayout()
CType(Me.DG2,
System.ComponentModel.ISupportInitialize).BeginInit()
CType(Me.DataSet31,
System.ComponentModel.ISupportInitialize).BeginInit()
Me.GroupBox3.SuspendLayout()
Me.SuspendLayout()

```

```

    'Button1
    '
    Me.Button1.Font = New System.Drawing.Font("新細明體", 9.75!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(136, Byte))
    Me.Button1.ForeColor = System.Drawing.Color.Red
    Me.Button1.Location = New System.Drawing.Point(912, 696)
    Me.Button1.Name = "Button1"
    Me.Button1.Size = New System.Drawing.Size(80, 24)
    Me.Button1.TabIndex = 0
    Me.Button1.Text = "Return"
    '
    'Label1
    '
    Me.Label1.BackColor =
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),
CType(224, Byte))
    Me.Label1.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.Label1.Font = New System.Drawing.Font("Arial", 9.75!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(0, Byte))
    Me.Label1.ForeColor = System.Drawing.Color.Blue
    Me.Label1.Location = New System.Drawing.Point(16, 8)
    Me.Label1.Name = "Label1"
    Me.Label1.Size = New System.Drawing.Size(160, 23)
    Me.Label1.TabIndex = 2
    Me.Label1.Text = "NETWORK Traffic Flow"
    Me.Label1.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    '
    'OleDbDataAdapter1
    '
    Me.OleDbDataAdapter1.DeleteCommand =
Me.OleDbDeleteCommand1
    Me.OleDbDataAdapter1.InsertCommand =
Me.OleDbInsertCommand1
    Me.OleDbDataAdapter1.SelectCommand =
Me.OleDbSelectCommand1
    Me.OleDbDataAdapter1.TableMappings.AddRange(New
System.Data.Common.DataTableMapping() {New
System.Data.Common.DataTableMapping("Table", "dbt", New
System.Data.Common.DataColumnMapping() {New
System.Data.Common.DataColumnMapping("link(start)", "link(start)", New
System.Data.Common.DataColumnMapping("link(end)", "link(end)", New
System.Data.Common.DataColumnMapping("capacity(normal)",
"capacity(normal)", New
System.Data.Common.DataColumnMapping("capacity(disaster)",
"capacity(disaster)", New System.Data.Common.DataColumnMapping("v1",
"v1"), New System.Data.Common.DataColumnMapping("t0", "t0"), New
System.Data.Common.DataColumnMapping("識別碼", "識別碼")}})})
    Me.OleDbDataAdapter1.UpdateCommand =
Me.OleDbUpdateCommand1
    '
    'OleDbDeleteCommand1
    '
    Me.OleDbDeleteCommand1.CommandText = "DELETE FROM dbt

```

```

WHERE (識別碼 = ?) AND (t0 = ? OR ? IS NULL AND t0 IS NULL)"
    Me.OleDbDeleteCommand1.Connection = Me.OleDbConnection1
    Me.OleDbDeleteCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("Original_識別碼",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "識別碼", System.Data.DataRowVersion.Original, Nothing))
    Me.OleDbDeleteCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("Original_t0",
System.Data.OleDb.OleDbType.Decimal, 0,
System.Data.ParameterDirection.Input, False, CType(18, Byte), CType(0,
Byte), "t0", System.Data.DataRowVersion.Original, Nothing))
    Me.OleDbDeleteCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("Original_t01",
System.Data.OleDb.OleDbType.Decimal, 0,
System.Data.ParameterDirection.Input, False, CType(18, Byte), CType(0,
Byte), "t0", System.Data.DataRowVersion.Original, Nothing))
    'OleDbConnection1
    Me.OleDbConnection1.ConnectionString =
"Provider=Microsoft.Jet.OLEDB.4.0;Password=" & _
"派地震災區緊急救援車輛
\WindowsApplication1\db2.mdb;Mode=Share Deny None;Extended
Properties" & _
"=" & _
Path=" & _
"assword=" & _
Jet OLEDB:Engine Type=5;Jet OLEDB:Database
Locking Mode=1;Jet OLEDB:G" & _
"lobal Partial Bulk Ops=2;Jet OLEDB:Global Bulk
Transactions=1;Jet OLEDB:New Data" & _
"base Password=" & _
Jet OLEDB:Create System Database=False;Jet
OLEDB:Encrypt Databa" & _
"se=False;Jet OLEDB:Don't Copy Locale on Compact=False;Jet
OLEDB:Compact Without " & _
"Replica Repair=False;Jet OLEDB:SFP=False"
    'OleDbInsertCommand1
    Me.OleDbInsertCommand1.CommandText = "INSERT INTO
dbt([link(start)], [link(end)], [capacity(normal)], [capacity(disaste" & _
"r)], v1, t0) VALUES (?, ?, ?, ?, ?, ?)"
    Me.OleDbInsertCommand1.Connection = Me.OleDbConnection1
    Me.OleDbInsertCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("link(start)",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "link(start)", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbInsertCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("link(end)",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "link(end)", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbInsertCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("capacity(normal)",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,

```

```

Byte), "capacity(normal)", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbInsertCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("capacity(disaster)",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "capacity(disaster)", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbInsertCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("v1",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "v1", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbInsertCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("t0",
System.Data.OleDb.OleDbType.Decimal, 0,
System.Data.ParameterDirection.Input, False, CType(18, Byte), CType(0,
Byte), "t0", System.Data.DataRowVersion.Current, Nothing))
    'OleDbSelectCommand1
    Me.OleDbSelectCommand1.CommandText = "SELECT [link(start)],
[link(end)], [capacity(normal)], [capacity(disaster)], v1, " & _
    "t0, 識別碼 FROM dbt"
    Me.OleDbSelectCommand1.Connection = Me.OleDbConnection1
    'OleDbUpdateCommand1
    Me.OleDbUpdateCommand1.CommandText = "UPDATE dbt SET
[link(start)] = ?, [link(end)] = ?, [capacity(normal)] = ?, [capac" & _
    "ity(disaster)] = ?, v1 = ?, t0 = ? WHERE (識別碼 = ?) AND (t0 = ?
OR ? IS NULL AND " & _
    "t0 IS NULL)"
    Me.OleDbUpdateCommand1.Connection = Me.OleDbConnection1
    Me.OleDbUpdateCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("link(start)",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "link(start)", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("link(end)",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "link(end)", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("capacity(normal)",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "capacity(normal)", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("capacity(disaster)",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "capacity(disaster)", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("v1",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "v1", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand1.Parameters.Add(New

```

```

System.Data.OleDb.OleDbParameter("t0",
System.Data.OleDb.OleDbType.Decimal, 0,
System.Data.ParameterDirection.Input, False, CType(18, Byte), CType(0,
Byte), "t0", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("Original_識別碼",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "識別碼", System.Data.DataRowVersion.Original, Nothing))
    Me.OleDbUpdateCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("Original_t0",
System.Data.OleDb.OleDbType.Decimal, 0,
System.Data.ParameterDirection.Input, False, CType(18, Byte), CType(0,
Byte), "t0", System.Data.DataRowVersion.Original, Nothing))
    Me.OleDbUpdateCommand1.Parameters.Add(New
System.Data.OleDb.OleDbParameter("Original_t01",
System.Data.OleDb.OleDbType.Decimal, 0,
System.Data.ParameterDirection.Input, False, CType(18, Byte), CType(0,
Byte), "t0", System.Data.DataRowVersion.Original, Nothing))
    'DataSet21
    Me.DataSet21.DataSetName = "DataSet2"
    Me.DataSet21.Locale = New
System.Globalization.CultureInfo("zh-TW")
    'DG1
    Me.DG1.AlternatingBackColor = System.Drawing.Color.Lavender
    Me.DG1.BackColor = System.Drawing.Color.WhiteSmoke
    Me.DG1.BackgroundColor = System.Drawing.Color.LightGray
    Me.DG1.BorderStyle = System.Windows.Forms.BorderStyle.None
    Me.DG1.CaptionBackColor = System.Drawing.Color.LightSteelBlue
    Me.DG1.CaptionForeColor = System.Drawing.Color.MidnightBlue
    Me.DG1.DataMember = ""
    Me.DG1.DataSource = Me.DataSet21.dbt
    Me.DG1.FlatMode = True
    Me.DG1.Font = New System.Drawing.Font("Tahoma", 8.0!)
    Me.DG1.ForeColor = System.Drawing.Color.MidnightBlue
    Me.DG1.GridLineColor = System.Drawing.Color.Gainsboro
    Me.DG1.GridLineStyle =
System.Windows.Forms.DataGridLineStyle.None
    Me.DG1.HeaderBackColor = System.Drawing.Color.MidnightBlue
    Me.DG1.HeaderFont = New System.Drawing.Font("Tahoma", 8.0!,
System.Drawing.FontStyle.Bold)
    Me.DG1.HeaderForeColor = System.Drawing.Color.WhiteSmoke
    Me.DG1.LinkColor = System.Drawing.Color.Teal
    Me.DG1.Location = New System.Drawing.Point(16, 32)
    Me.DG1.Name = "DG1"
    Me.DG1.ParentRowsBackColor = System.Drawing.Color.Gainsboro
    Me.DG1.ParentRowsForeColor =
System.Drawing.Color.MidnightBlue
    Me.DG1.SelectionBackColor = System.Drawing.Color.CadetBlue
    Me.DG1.SelectionForeColor = System.Drawing.Color.WhiteSmoke
    Me.DG1.Size = New System.Drawing.Size(400, 224)
    Me.DG1.TabIndex = 3
    'CBOXS

```



```
Me.CBOXS.Font = New System.Drawing.Font("Aharoni", 12.0!,  
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,  
CType(177, Byte))
```

```
Me.CBOXS.Items.AddRange(New Object() {"1", "2", "3", "4", "5",  
"6", "7", "8", "9", "10", "11", "12", "13", "14", "15", "16", "17", "18", "19",  
"20", "21", "22", "23", "24", "25", "26", "27", "28", "29", "30", "31", "32", "33",  
"34", "35", "36", "37", "38", "39", "40", "41", "42", "43", "44", "45", "46", "47",  
"48", "49", "50", "51", "52", "53", "54", "55", "56", "57", "58", "59", "60", "61",  
"62", "63", "64", "65", "66", "67", "68", "69", "70", "71", "72", "73", "74", "75",  
"76", "77", "78", "79"}))
```

```
Me.CBOXS.Location = New System.Drawing.Point(200, 96)  
Me.CBOXS.Name = "CBOXS"  
Me.CBOXS.Size = New System.Drawing.Size(121, 24)  
Me.CBOXS.TabIndex = 4  
Me.CBOXS.Text = "CBOXS"
```

```
'CBOXE
```

```
Me.CBOXE.Font = New System.Drawing.Font("Aharoni", 12.0!,  
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,  
CType(177, Byte))
```

```
Me.CBOXE.Items.AddRange(New Object() {"1", "2", "3", "4", "5",  
"6", "7", "8", "9", "10", "11", "12", "13", "14", "15", "16", "17", "18", "19",  
"20", "21", "22", "23", "24", "25", "26", "27", "28", "29", "30", "31", "32", "33",  
"34", "35", "36", "37", "38", "39", "40", "41", "42", "43", "44", "45", "46", "47",  
"48", "49", "50", "51", "52", "53", "54", "55", "56", "57", "58", "59", "60", "61",  
"62", "63", "64", "65", "66", "67", "68", "69", "70", "71", "72", "73", "74", "75",  
"76", "77", "78", "79"}))
```

```
Me.CBOXE.Location = New System.Drawing.Point(328, 96)  
Me.CBOXE.Name = "CBOXE"  
Me.CBOXE.Size = New System.Drawing.Size(121, 24)  
Me.CBOXE.TabIndex = 5  
Me.CBOXE.Text = "CBOXE"
```

```
'PictureBox3
```

```
Me.PictureBox3.BackColor = System.Drawing.Color.White  
Me.PictureBox3.BorderStyle =  
System.Windows.Forms.BorderStyle.Fixed3D  
Me.PictureBox3.Image =  
CType(resources.GetObject("PictureBox3.Image"), System.Drawing.Image)  
Me.PictureBox3.Location = New System.Drawing.Point(8, 24)  
Me.PictureBox3.Name = "PictureBox3"  
Me.PictureBox3.Size = New System.Drawing.Size(432, 40)  
Me.PictureBox3.SizeMode =  
System.Windows.Forms.PictureBoxSizeMode.StretchImage  
Me.PictureBox3.TabIndex = 15  
Me.PictureBox3.TabStop = False
```

```
'GroupBox1
```

```
Me.GroupBox1.Controls.Add(Me.Label19)  
Me.GroupBox1.Controls.Add(Me.BTNset)  
Me.GroupBox1.Controls.Add(Me.TXtv)  
Me.GroupBox1.Controls.Add(Me.TXtc)
```

```

Me.GroupBox1.Controls.Add(Me.Label4)
Me.GroupBox1.Controls.Add(Me.Label)
Me.GroupBox1.Controls.Add(Me.LBvpije)
Me.GroupBox1.Controls.Add(Me.LBc)
Me.GroupBox1.Controls.Add(Me.LBmaxq)
Me.GroupBox1.Controls.Add(Me.Label12)
Me.GroupBox1.Controls.Add(Me.BTNreset)
Me.GroupBox1.Controls.Add(Me.LBvpiji)
Me.GroupBox1.Controls.Add(Me.LBs)
Me.GroupBox1.Controls.Add(Me.LBvmn)
Me.GroupBox1.Controls.Add(Me.TXvn)
Me.GroupBox1.Controls.Add(Me.TXvm)
Me.GroupBox1.Controls.Add(Me.Label7)
Me.GroupBox1.Controls.Add(Me.Label6)
Me.GroupBox1.Controls.Add(Me.BTNmaxq)
Me.GroupBox1.Controls.Add(Me.BTNvmn)
Me.GroupBox1.Controls.Add(Me.PictureBox1)
Me.GroupBox1.Controls.Add(Me.LBstime)
Me.GroupBox1.Controls.Add(Me.Label14)
Me.GroupBox1.FlatStyle = System.Windows.Forms.FlatStyle.Popup
Me.GroupBox1.Font = New System.Drawing.Font("Arial", 9.75!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(0, Byte))
Me.GroupBox1.ForeColor = System.Drawing.Color.Blue
Me.GroupBox1.Location = New System.Drawing.Point(24, 392)
Me.GroupBox1.Name = "GroupBox1"
Me.GroupBox1.Size = New System.Drawing.Size(400, 288)
Me.GroupBox1.TabIndex = 17
Me.GroupBox1.TabStop = False
Me.GroupBox1.Text = "Upper Level Problem"
'
'Label19
'
Me.Label19.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.Label19.Location = New System.Drawing.Point(352, 136)
Me.Label19.Name = "Label19"
Me.Label19.Size = New System.Drawing.Size(32, 23)
Me.Label19.TabIndex = 25
Me.Label19.Text = "Sec"
Me.Label19.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
'
'BTNset
'
Me.BTNset.Location = New System.Drawing.Point(120, 160)
Me.BTNset.Name = "BTNset"
Me.BTNset.Size = New System.Drawing.Size(64, 24)
Me.BTNset.TabIndex = 24
Me.BTNset.Text = "Set"
'
'TXtv
'
Me.TXtv.Location = New System.Drawing.Point(120, 136)
Me.TXtv.Name = "TXtv"
Me.TXtv.Size = New System.Drawing.Size(64, 22)
Me.TXtv.TabIndex = 23
Me.TXtv.Text = ""

```

```

    '
    'TXtc
    '
    Me.TXtc.Location = New System.Drawing.Point(120, 104)
    Me.TXtc.Name = "TXtc"
    Me.TXtc.Size = New System.Drawing.Size(64, 22)
    Me.TXtc.TabIndex = 22
    Me.TXtc.Text = ""
    '
    'Label4
    '
    Me.Label4.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.Label4.Location = New System.Drawing.Point(16, 136)
    Me.Label4.Name = "Label4"
    Me.Label4.Size = New System.Drawing.Size(104, 23)
    Me.Label4.TabIndex = 21
    Me.Label4.Text = "Total vehical"
    '
    'Label
    '
    Me.Label.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.Label.Location = New System.Drawing.Point(16, 104)
    Me.Label.Name = "Label"
    Me.Label.Size = New System.Drawing.Size(104, 23)
    Me.Label.TabIndex = 20
    Me.Label.Text = "Total Capacity"
    '
    'LBvpije
    '
    Me.LBvpije.BackColor =
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),
CType(224, Byte))
    Me.LBvpije.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.LBvpije.Font = New System.Drawing.Font("Arial Rounded MT
Bold", 12.0!, System.Drawing.FontStyle.Regular,
System.Drawing.GraphicsUnit.Point, CType(0, Byte))
    Me.LBvpije.ForeColor = System.Drawing.Color.Blue
    Me.LBvpije.Location = New System.Drawing.Point(280, 200)
    Me.LBvpije.Name = "LBvpije"
    Me.LBvpije.Size = New System.Drawing.Size(104, 23)
    Me.LBvpije.TabIndex = 19
    Me.LBvpije.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    '
    'LBc
    '
    Me.LBc.BackColor = System.Drawing.Color.FromArgb(CType(224,
Byte), CType(224, Byte), CType(224, Byte))
    Me.LBc.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.LBc.Font = New System.Drawing.Font("Arial Rounded MT
Bold", 12.0!, System.Drawing.FontStyle.Regular,
System.Drawing.GraphicsUnit.Point, CType(0, Byte))
    Me.LBc.ForeColor = System.Drawing.Color.Blue
    Me.LBc.Location = New System.Drawing.Point(200, 200)

```

```

Me.LBc.Name = "LBc"
Me.LBc.Size = New System.Drawing.Size(80, 23)
Me.LBc.TabIndex = 18
Me.LBc.Text = "(Vpij)E"
Me.LBc.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
,
'LBmaxq
,
Me.LBmaxq.BackColor =
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),
CType(224, Byte))
Me.LBmaxq.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.LBmaxq.Font = New System.Drawing.Font("Arial Rounded MT
Bold", 12.0!, System.Drawing.FontStyle.Regular,
System.Drawing.GraphicsUnit.Point, CType(0, Byte))
Me.LBmaxq.Location = New System.Drawing.Point(280, 232)
Me.LBmaxq.Name = "LBmaxq"
Me.LBmaxq.Size = New System.Drawing.Size(104, 23)
Me.LBmaxq.TabIndex = 17
Me.LBmaxq.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
,
'Label12
,
Me.Label12.BackColor =
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),
CType(224, Byte))
Me.Label12.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.Label12.Font = New System.Drawing.Font("Arial Rounded MT
Bold", 12.0!, System.Drawing.FontStyle.Regular,
System.Drawing.GraphicsUnit.Point, CType(0, Byte))
Me.Label12.ForeColor = System.Drawing.Color.Red
Me.Label12.Location = New System.Drawing.Point(200, 232)
Me.Label12.Name = "Label12"
Me.Label12.Size = New System.Drawing.Size(80, 24)
Me.Label12.TabIndex = 16
Me.Label12.Text = "MaxQ"
Me.Label12.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
,
'BTNreset
,
Me.BTNreset.BackColor = System.Drawing.Color.White
Me.BTNreset.FlatStyle = System.Windows.Forms.FlatStyle.Popup
Me.BTNreset.Font = New System.Drawing.Font("Arial Rounded MT
Bold", 12.0!, System.Drawing.FontStyle.Regular,
System.Drawing.GraphicsUnit.Point, CType(0, Byte))
Me.BTNreset.ForeColor = System.Drawing.Color.Blue
Me.BTNreset.Location = New System.Drawing.Point(296, 104)
Me.BTNreset.Name = "BTNreset"
Me.BTNreset.Size = New System.Drawing.Size(88, 23)
Me.BTNreset.TabIndex = 15
Me.BTNreset.Text = "Reset"
,
'LBvpiji

```

```
Me.LBvpiji.BackColor =  
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),  
CType(224, Byte))  
Me.LBvpiji.BorderStyle =  
System.Windows.Forms.BorderStyle.Fixed3D  
Me.LBvpiji.Font = New System.Drawing.Font("Arial Rounded MT  
Bold", 12.0!, System.Drawing.FontStyle.Regular,  
System.Drawing.GraphicsUnit.Point, CType(0, Byte))  
Me.LBvpiji.Location = New System.Drawing.Point(280, 168)  
Me.LBvpiji.Name = "LBvpiji"  
Me.LBvpiji.Size = New System.Drawing.Size(104, 23)  
Me.LBvpiji.TabIndex = 14  
Me.LBvpiji.TextAlign =  
System.Drawing.ContentAlignment.MiddleCenter
```

```
'LBs
```

```
Me.LBs.BackColor = System.Drawing.Color.FromArgb(CType(224,  
Byte), CType(224, Byte), CType(224, Byte))  
Me.LBs.BorderStyle =  
System.Windows.Forms.BorderStyle.Fixed3D  
Me.LBs.Font = New System.Drawing.Font("Arial Rounded MT  
Bold", 12.0!, System.Drawing.FontStyle.Regular,  
System.Drawing.GraphicsUnit.Point, CType(0, Byte))  
Me.LBs.ForeColor = System.Drawing.Color.Blue  
Me.LBs.Location = New System.Drawing.Point(200, 168)  
Me.LBs.Name = "LBs"  
Me.LBs.Size = New System.Drawing.Size(80, 23)  
Me.LBs.TabIndex = 13  
Me.LBs.Text = "(Vpij)I"  
Me.LBs.TextAlign =  
System.Drawing.ContentAlignment.MiddleCenter
```

```
'LBvmn
```

```
Me.LBvmn.BackColor =  
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),  
CType(224, Byte))  
Me.LBvmn.BorderStyle =  
System.Windows.Forms.BorderStyle.Fixed3D  
Me.LBvmn.Font = New System.Drawing.Font("Arial Rounded MT  
Bold", 12.0!, System.Drawing.FontStyle.Regular,  
System.Drawing.GraphicsUnit.Point, CType(0, Byte))  
Me.LBvmn.ForeColor = System.Drawing.Color.Maroon  
Me.LBvmn.Location = New System.Drawing.Point(104, 256)  
Me.LBvmn.Name = "LBvmn"  
Me.LBvmn.Size = New System.Drawing.Size(80, 24)  
Me.LBvmn.TabIndex = 11  
Me.LBvmn.TextAlign =  
System.Drawing.ContentAlignment.MiddleCenter
```

```
'TXvn
```

```
Me.TXvn.BackColor = System.Drawing.Color.White  
Me.TXvn.Font = New System.Drawing.Font("Arial Rounded MT  
Bold", 12.0!, System.Drawing.FontStyle.Regular,  
System.Drawing.GraphicsUnit.Point, CType(0, Byte))
```

```

Me.TXvn.ForeColor = System.Drawing.Color.Red
Me.TXvn.Location = New System.Drawing.Point(104, 224)
Me.TXvn.Name = "TXvn"
Me.TXvn.Size = New System.Drawing.Size(80, 26)
Me.TXvn.TabIndex = 9
Me.TXvn.Text = "600"
Me.TXvn.TextAlign =
System.Windows.Forms.HorizontalAlignment.Center
,
'TXvm
,
Me.TXvm.BackColor =
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),
CType(224, Byte))
Me.TXvm.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.TXvm.Font = New System.Drawing.Font("Arial Rounded MT
Bold", 12.0!, System.Drawing.FontStyle.Regular,
System.Drawing.GraphicsUnit.Point, CType(0, Byte))
Me.TXvm.ForeColor = System.Drawing.Color.Blue
Me.TXvm.Location = New System.Drawing.Point(104, 192)
Me.TXvm.Name = "TXvm"
Me.TXvm.Size = New System.Drawing.Size(80, 23)
Me.TXvm.TabIndex = 8
Me.TXvm.Text = "0"
Me.TXvm.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
,
'Label7
,
Me.Label7.BackColor = System.Drawing.Color.Gainsboro
Me.Label7.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.Label7.Font = New System.Drawing.Font("Arial Rounded MT
Bold", 12.0!, System.Drawing.FontStyle.Regular,
System.Drawing.GraphicsUnit.Point, CType(0, Byte))
Me.Label7.ForeColor = System.Drawing.Color.Blue
Me.Label7.Location = New System.Drawing.Point(16, 224)
Me.Label7.Name = "Label7"
Me.Label7.Size = New System.Drawing.Size(96, 24)
Me.Label7.TabIndex = 7
Me.Label7.Text = "Each (Vn)"
Me.Label7.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
,
'Label6
,
Me.Label6.BackColor =
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),
CType(224, Byte))
Me.Label6.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.Label6.Font = New System.Drawing.Font("Arial Rounded MT
Bold", 12.0!, System.Drawing.FontStyle.Regular,
System.Drawing.GraphicsUnit.Point, CType(0, Byte))
Me.Label6.ForeColor = System.Drawing.Color.Blue
Me.Label6.Location = New System.Drawing.Point(16, 192)
Me.Label6.Name = "Label6"

```

```

Me.Label6.Size = New System.Drawing.Size(96, 24)
Me.Label6.TabIndex = 6
Me.Label6.Text = "Each (Vm)"
Me.Label6.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
,
'BTNmaxq
,
Me.BTNmaxq.BackColor =
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),
CType(224, Byte))
Me.BTNmaxq.Font = New System.Drawing.Font("Arial Rounded
MT Bold", 11.25!, System.Drawing.FontStyle.Regular,
System.Drawing.GraphicsUnit.Point, CType(0, Byte))
Me.BTNmaxq.ForeColor = System.Drawing.Color.Red
Me.BTNmaxq.Location = New System.Drawing.Point(200, 104)
Me.BTNmaxq.Name = "BTNmaxq"
Me.BTNmaxq.Size = New System.Drawing.Size(104, 24)
Me.BTNmaxq.TabIndex = 4
Me.BTNmaxq.Text = "Show MaxQ"
,
'BTNvmn
,
Me.BTNvmn.BackColor =
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),
CType(224, Byte))
Me.BTNvmn.Font = New System.Drawing.Font("Arial Rounded MT
Bold", 12.0!, System.Drawing.FontStyle.Regular,
System.Drawing.GraphicsUnit.Point, CType(0, Byte))
Me.BTNvmn.ForeColor = System.Drawing.Color.Blue
Me.BTNvmn.Location = New System.Drawing.Point(16, 256)
Me.BTNvmn.Name = "BTNvmn"
Me.BTNvmn.Size = New System.Drawing.Size(88, 23)
Me.BTNvmn.TabIndex = 4
Me.BTNvmn.Text = "Vmn"
,
'PictureBox1
,
Me.PictureBox1.BackColor = System.Drawing.Color.White
Me.PictureBox1.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.PictureBox1.Image =
CType(resources.GetObject("PictureBox1.Image"), System.Drawing.Image)
Me.PictureBox1.Location = New System.Drawing.Point(16, 32)
Me.PictureBox1.Name = "PictureBox1"
Me.PictureBox1.Size = New System.Drawing.Size(368, 56)
Me.PictureBox1.TabIndex = 2
Me.PictureBox1.TabStop = False
,
'LBstime
,
Me.LBstime.BackColor =
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),
CType(224, Byte))
Me.LBstime.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.LBstime.Font = New System.Drawing.Font("Arial", 8.25!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,

```

```

CType(0, Byte))
    Me.LBstime.ForeColor = System.Drawing.Color.Red
    Me.LBstime.Location = New System.Drawing.Point(296, 136)
    Me.LBstime.Name = "LBstime"
    Me.LBstime.Size = New System.Drawing.Size(56, 24)
    Me.LBstime.TabIndex = 8
    Me.LBstime.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    ,
    'Label14
    ,
    Me.Label14.BackColor = System.Drawing.Color.White
    Me.Label14.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.Label14.Font = New System.Drawing.Font("Arial", 11.25!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(0, Byte))
    Me.Label14.ForeColor = System.Drawing.Color.Blue
    Me.Label14.Location = New System.Drawing.Point(200, 136)
    Me.Label14.Name = "Label14"
    Me.Label14.Size = New System.Drawing.Size(96, 24)
    Me.Label14.TabIndex = 7
    Me.Label14.Text = "Count time"
    Me.Label14.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    ,
    'PictureBox2
    ,
    Me.PictureBox2.BackColor = System.Drawing.Color.White
    Me.PictureBox2.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.PictureBox2.Image =
CType(resources.GetObject("PictureBox2.Image"), System.Drawing.Image)
    Me.PictureBox2.Location = New System.Drawing.Point(8, 72)
    Me.PictureBox2.Name = "PictureBox2"
    Me.PictureBox2.Size = New System.Drawing.Size(184, 40)
    Me.PictureBox2.SizeMode =
System.Windows.Forms.PictureBoxSizeMode.StretchImage
    Me.PictureBox2.TabIndex = 18
    Me.PictureBox2.TabStop = False
    ,
    'GroupBox2
    ,
    Me.GroupBox2.Controls.Add(Me.LBtime)
    Me.GroupBox2.Controls.Add(Me.LB)
    Me.GroupBox2.Controls.Add(Me.LBOXpath)
    Me.GroupBox2.Controls.Add(Me.LBmin)
    Me.GroupBox2.Controls.Add(Me.Label15)
    Me.GroupBox2.Controls.Add(Me.BTNgagraph)
    Me.GroupBox2.Controls.Add(Me.Label10)
    Me.GroupBox2.Controls.Add(Me.Label19)
    Me.GroupBox2.Controls.Add(Me.BTNgapath)
    Me.GroupBox2.Controls.Add(Me.PictureBox3)
    Me.GroupBox2.Controls.Add(Me.CBOXS)
    Me.GroupBox2.Controls.Add(Me.CBOXE)
    Me.GroupBox2.Controls.Add(Me.PictureBox2)
    Me.GroupBox2.Controls.Add(Me.Button3)
    Me.GroupBox2.Font = New System.Drawing.Font("Aharoni", 9.75!,

```



```

System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(177, Byte))
    Me.GroupBox2.ForeColor = System.Drawing.Color.Blue
    Me.GroupBox2.Location = New System.Drawing.Point(440, 432)
    Me.GroupBox2.Name = "GroupBox2"
    Me.GroupBox2.Size = New System.Drawing.Size(568, 248)
    Me.GroupBox2.TabIndex = 19
    Me.GroupBox2.TabStop = False
    Me.GroupBox2.Text = "Low Level Problem"
    ,
    'LBtime
    ,
    Me.LBtime.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.LBtime.Location = New System.Drawing.Point(448, 104)
    Me.LBtime.Name = "LBtime"
    Me.LBtime.Size = New System.Drawing.Size(112, 23)
    Me.LBtime.TabIndex = 27
    ,
    'LB
    ,
    Me.LB.BackColor = System.Drawing.Color.White
    Me.LB.BorderStyle = System.Windows.Forms.BorderStyle.Fixed3D
    Me.LB.Location = New System.Drawing.Point(448, 80)
    Me.LB.Name = "LB"
    Me.LB.Size = New System.Drawing.Size(112, 24)
    Me.LB.TabIndex = 26
    Me.LB.Text = "Count time (Sec)"
    Me.LB.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    ,
    'LBOXpath
    ,
    Me.LBOXpath.ForeColor =
System.Drawing.SystemColors.HotTrack
    Me.LBOXpath.HorizontalExtent = 2000
    Me.LBOXpath.HorizontalScrollbar = True
    Me.LBOXpath.Location = New System.Drawing.Point(8, 152)
    Me.LBOXpath.Name = "LBOXpath"
    Me.LBOXpath.ScrollAlwaysVisible = True
    Me.LBOXpath.Size = New System.Drawing.Size(432, 69)
    Me.LBOXpath.TabIndex = 25
    ,
    'LBmin
    ,
    Me.LBmin.BackColor =
System.Drawing.Color.FromArgb(CType(224, Byte), CType(224, Byte),
CType(224, Byte))
    Me.LBmin.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.LBmin.Font = New System.Drawing.Font("Arial", 8.25!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(0, Byte))
    Me.LBmin.ForeColor = System.Drawing.Color.Blue
    Me.LBmin.Location = New System.Drawing.Point(448, 48)
    Me.LBmin.Name = "LBmin"
    Me.LBmin.Size = New System.Drawing.Size(112, 24)
    Me.LBmin.TabIndex = 24

```

```

        Me.LBmin.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    ,
    Label15
    ,
        Me.Label15.BackColor = System.Drawing.Color.White
        Me.Label15.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
        Me.Label15.ForeColor = System.Drawing.Color.Blue
        Me.Label15.Location = New System.Drawing.Point(448, 24)
        Me.Label15.Name = "Label15"
        Me.Label15.Size = New System.Drawing.Size(112, 24)
        Me.Label15.TabIndex = 23
        Me.Label15.Text = "Min time (min)"
        Me.Label15.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    ,
    BTNgagraph
    ,
        Me.BTNgagraph.ForeColor = System.Drawing.Color.Red
        Me.BTNgagraph.Location = New System.Drawing.Point(328, 120)
        Me.BTNgagraph.Name = "BTNgagraph"
        Me.BTNgagraph.Size = New System.Drawing.Size(120, 24)
        Me.BTNgagraph.TabIndex = 22
        Me.BTNgagraph.Text = "GAgraph"
    ,
    Label10
    ,
        Me.Label10.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
        Me.Label10.Font = New System.Drawing.Font("Arial", 9.75!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(0, Byte))
        Me.Label10.ForeColor = System.Drawing.Color.Red
        Me.Label10.Location = New System.Drawing.Point(328, 72)
        Me.Label10.Name = "Label10"
        Me.Label10.Size = New System.Drawing.Size(120, 23)
        Me.Label10.TabIndex = 21
        Me.Label10.Text = "End Point"
        Me.Label10.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    ,
    Label9
    ,
        Me.Label9.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
        Me.Label9.Font = New System.Drawing.Font("Arial", 9.75!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(0, Byte))
        Me.Label9.ForeColor = System.Drawing.Color.Blue
        Me.Label9.Location = New System.Drawing.Point(200, 72)
        Me.Label9.Name = "Label9"
        Me.Label9.Size = New System.Drawing.Size(120, 23)
        Me.Label9.TabIndex = 20
        Me.Label9.Text = "Start Point"
        Me.Label9.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    ,

```

```

'BTNgapath
,
Me.BTNgapath.Location = New System.Drawing.Point(200, 120)
Me.BTNgapath.Name = "BTNgapath"
Me.BTNgapath.Size = New System.Drawing.Size(120, 24)
Me.BTNgapath.TabIndex = 19
Me.BTNgapath.Text = "GApath"
,
'Button3
,
Me.Button3.ForeColor = System.Drawing.Color.Red
Me.Button3.Location = New System.Drawing.Point(456, 192)
Me.Button3.Name = "Button3"
Me.Button3.Size = New System.Drawing.Size(96, 24)
Me.Button3.TabIndex = 25
Me.Button3.Text = "Return"
,
'GBOXgraph
,
Me.GBOXgraph.Controls.Add(Me.Button5)
Me.GBOXgraph.Controls.Add(Me.Button4)
Me.GBOXgraph.Controls.Add(Me.Label11)
Me.GBOXgraph.Controls.Add(Me.BTNsmaxq)
Me.GBOXgraph.Controls.Add(Me.Label18)
Me.GBOXgraph.Controls.Add(Me.BTNdisaster)
Me.GBOXgraph.Controls.Add(Me.Label17)
Me.GBOXgraph.Font = New System.Drawing.Font("Arial", 9.75!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(0, Byte))
Me.GBOXgraph.ForeColor = System.Drawing.Color.Blue
Me.GBOXgraph.Location = New System.Drawing.Point(440, 272)
Me.GBOXgraph.Name = "GBOXgraph"
Me.GBOXgraph.Size = New System.Drawing.Size(568, 152)
Me.GBOXgraph.TabIndex = 20
Me.GBOXgraph.TabStop = False
Me.GBOXgraph.Text = "Statistical Graph"
,
'Button4
,
Me.Button4.BackColor =
System.Drawing.SystemColors.ActiveCaptionText
Me.Button4.Location = New System.Drawing.Point(296, 96)
Me.Button4.Name = "Button4"
Me.Button4.Size = New System.Drawing.Size(80, 23)
Me.Button4.TabIndex = 7
Me.Button4.Text = "Graph"
,
'Label11
,
Me.Label11.BackColor =
System.Drawing.SystemColors.ActiveCaptionText
Me.Label11.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.Label11.Location = New System.Drawing.Point(16, 96)
Me.Label11.Name = "Label11"
Me.Label11.Size = New System.Drawing.Size(232, 23)
Me.Label11.TabIndex = 6
Me.Label11.Text = "3.Variables Effect result graph"

```

```

',
'BTNsmaxq
',
Me.BTNsmaxq.BackColor = System.Drawing.Color.Yellow
Me.BTNsmaxq.Location = New System.Drawing.Point(296, 64)
Me.BTNsmaxq.Name = "BTNsmaxq"
Me.BTNsmaxq.Size = New System.Drawing.Size(80, 23)
Me.BTNsmaxq.TabIndex = 5
Me.BTNsmaxq.Text = "MaxQ"
',
'Label18
',
Me.Label18.BackColor = System.Drawing.Color.Yellow
Me.Label18.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.Label18.Font = New System.Drawing.Font("Arial", 9.75!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(0, Byte))
Me.Label18.ForeColor = System.Drawing.Color.Navy
Me.Label18.Location = New System.Drawing.Point(16, 64)
Me.Label18.Name = "Label18"
Me.Label18.Size = New System.Drawing.Size(232, 23)
Me.Label18.TabIndex = 4
Me.Label18.Text = "2.MaxQ Control _Emergency Add"
Me.Label18.TextAlign =
System.Drawing.ContentAlignment.MiddleLeft
',
'BTNdisaster
',
Me.BTNdisaster.BackColor = System.Drawing.Color.White
Me.BTNdisaster.Font = New System.Drawing.Font("Arial", 9.75!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(0, Byte))
Me.BTNdisaster.ForeColor = System.Drawing.Color.Blue
Me.BTNdisaster.Location = New System.Drawing.Point(296, 32)
Me.BTNdisaster.Name = "BTNdisaster"
Me.BTNdisaster.Size = New System.Drawing.Size(80, 23)
Me.BTNdisaster.TabIndex = 3
Me.BTNdisaster.Text = "Disaster"
',
'Label17
',
Me.Label17.BackColor = System.Drawing.Color.White
Me.Label17.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.Label17.Font = New System.Drawing.Font("Arial", 9.75!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(0, Byte))
Me.Label17.ForeColor = System.Drawing.Color.Blue
Me.Label17.Location = New System.Drawing.Point(16, 32)
Me.Label17.Name = "Label17"
Me.Label17.Size = New System.Drawing.Size(232, 24)
Me.Label17.TabIndex = 2
Me.Label17.Text = "1.Trffic and capacity after Disaster"
Me.Label17.TextAlign =
System.Drawing.ContentAlignment.MiddleLeft
',
'DG2

```

```

Me.DG2.AlternatingBackColor = System.Drawing.Color.Lavender
Me.DG2.BackColor = System.Drawing.Color.WhiteSmoke
Me.DG2.BackgroundColor = System.Drawing.Color.LightGray
Me.DG2.BorderStyle = System.Windows.Forms.BorderStyle.None
Me.DG2.CaptionBackColor = System.Drawing.Color.LightSteelBlue
Me.DG2.CaptionForeColor = System.Drawing.Color.MidnightBlue
Me.DG2.DataMember = ""
Me.DG2.DataSource = Me.DataSet31.ga
Me.DG2.FlatMode = True
Me.DG2.Font = New System.Drawing.Font("Tahoma", 8.0!)
Me.DG2.ForeColor = System.Drawing.Color.MidnightBlue
Me.DG2.GridLineColor = System.Drawing.Color.Gainsboro
Me.DG2.GridLineStyle =
System.Windows.Forms.DataGridLineStyle.None
Me.DG2.HeaderBackColor = System.Drawing.Color.MidnightBlue
Me.DG2.HeaderFont = New System.Drawing.Font("Tahoma", 8.0!,
System.Drawing.FontStyle.Bold)
Me.DG2.HeaderForeColor = System.Drawing.Color.WhiteSmoke
Me.DG2.LinkColor = System.Drawing.Color.Teal
Me.DG2.Location = New System.Drawing.Point(440, 32)
Me.DG2.Name = "DG2"
Me.DG2.ParentRowsBackColor = System.Drawing.Color.Gainsboro
Me.DG2.ParentRowsForeColor =
System.Drawing.Color.MidnightBlue
Me.DG2.SelectionBackColor = System.Drawing.Color.CadetBlue
Me.DG2.SelectionForeColor = System.Drawing.Color.WhiteSmoke
Me.DG2.Size = New System.Drawing.Size(560, 224)
Me.DG2.TabIndex = 21
'
'DataSet31
'
Me.DataSet31.DataSetName = "DataSet3"
Me.DataSet31.Locale = New
System.Globalization.CultureInfo("zh-TW")
'
'OleDbDataAdapter2
'
Me.OleDbDataAdapter2.DeleteCommand =
Me.OleDbDeleteCommand2
Me.OleDbDataAdapter2.InsertCommand =
Me.OleDbInsertCommand2
Me.OleDbDataAdapter2.SelectCommand =
Me.OleDbSelectCommand2
Me.OleDbDataAdapter2.TableMappings.AddRange(New
System.Data.Common.DataTableMapping() {New
System.Data.Common.DataTableMapping("Table", "ga", New
System.Data.Common.DataColumnMapping() {New
System.Data.Common.DataColumnMapping("generation", "generation"), New
System.Data.Common.DataColumnMapping("group", "group"), New
System.Data.Common.DataColumnMapping("vpiji", "vpiji"), New
System.Data.Common.DataColumnMapping("vpije", "vpije"), New
System.Data.Common.DataColumnMapping("vmn", "vmn"), New
System.Data.Common.DataColumnMapping("maxq", "maxq"), New
System.Data.Common.DataColumnMapping("識別碼", "識別碼")}}})
Me.OleDbDataAdapter2.UpdateCommand =
Me.OleDbUpdateCommand2
'

```

```

'OleDbDeleteCommand2
,
Me.OleDbDeleteCommand2.CommandText = "DELETE FROM ga
WHERE (識別碼 = ?)"
Me.OleDbDeleteCommand2.Connection = Me.OleDbConnection2
Me.OleDbDeleteCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("Original_識別碼",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "識別碼", System.Data.DataRowVersion.Original, Nothing))

'OleDbConnection2
,
Me.OleDbConnection2.ConnectionString =
"Provider=Microsoft.Jet.OLEDB.4.0;Password="";User ID=Admin;Data
Source=D:\二階規劃模式分" &
"派地震災區緊急救援車輛
\WindowsApplication1\db3.mdb;Mode=Share Deny None;Extended
Properties" &
"="";Jet OLEDB:System database="";Jet OLEDB:Registry
Path="";Jet OLEDB:Database P" &
"assword="";Jet OLEDB:Engine Type=5;Jet OLEDB:Database
Locking Mode=1;Jet OLEDB:G" &
"lobal Partial Bulk Ops=2;Jet OLEDB:Global Bulk
Transactions=1;Jet OLEDB:New Data" &
"base Password="";Jet OLEDB:Create System Database=False;Jet
OLEDB:Encrypt Databa" &
"se=False;Jet OLEDB:Don't Copy Locale on Compact=False;Jet
OLEDB:Compact Without " &
"Replica Repair=False;Jet OLEDB:SFP=False"

'OleDbInsertCommand2
,
Me.OleDbInsertCommand2.CommandText = "INSERT INTO
ga(generation, [group], vpiji, vpije, vmn, maxq) VALUES (?, ?, ?, ?, " & _
"?, ?)"
Me.OleDbInsertCommand2.Connection = Me.OleDbConnection2
Me.OleDbInsertCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("generation",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "generation", System.Data.DataRowVersion.Current, Nothing))
Me.OleDbInsertCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("group",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "group", System.Data.DataRowVersion.Current, Nothing))
Me.OleDbInsertCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("vpiji",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "vpiji", System.Data.DataRowVersion.Current, Nothing))
Me.OleDbInsertCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("vpije",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "vpije", System.Data.DataRowVersion.Current, Nothing))
Me.OleDbInsertCommand2.Parameters.Add(New

```

```

System.Data.OleDb.OleDbParameter("vmn",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "vmn", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbInsertCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("maxq",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "maxq", System.Data.DataRowVersion.Current, Nothing))
    ,
'OleDbSelectCommand2
,
    Me.OleDbSelectCommand2.CommandText = "SELECT generation,
[group], vpiji, vpije, vmn, maxq, 識別碼 FROM ga"
    Me.OleDbSelectCommand2.Connection = Me.OleDbConnection2
    ,
'OleDbUpdateCommand2
,
    Me.OleDbUpdateCommand2.CommandText = "UPDATE ga SET
generation = ?, [group] = ?, vpiji = ?, vpije = ?, vmn = ?, maxq = " & _
"? WHERE (識別碼 = ?)"
    Me.OleDbUpdateCommand2.Connection = Me.OleDbConnection2
    Me.OleDbUpdateCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("generation",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "generation", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("group",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "group", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("vpiji",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "vpiji", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("vpije",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "vpije", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("vmn",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "vmn", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("maxq",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "maxq", System.Data.DataRowVersion.Current, Nothing))
    Me.OleDbUpdateCommand2.Parameters.Add(New
System.Data.OleDb.OleDbParameter("Original_識別碼",
System.Data.OleDb.OleDbType.Integer, 0,
System.Data.ParameterDirection.Input, False, CType(10, Byte), CType(0,
Byte), "識別碼", System.Data.DataRowVersion.Original, Nothing))

```

```

    'Label2
    ,
    Me.Label2.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.Label2.Font = New System.Drawing.Font("新細明體", 9.75!,
System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(136, Byte))
    Me.Label2.ForeColor = System.Drawing.Color.Blue
    Me.Label2.Location = New System.Drawing.Point(440, 8)
    Me.Label2.Name = "Label2"
    Me.Label2.Size = New System.Drawing.Size(176, 23)
    Me.Label2.TabIndex = 22
    Me.Label2.Text = "GA algorithm implementation"
    Me.Label2.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    ,
    'GroupBox3
    ,
    Me.GroupBox3.Controls.Add(Me.TXG)
    Me.GroupBox3.Controls.Add(Me.Label8)
    Me.GroupBox3.Controls.Add(Me.TXd3)
    Me.GroupBox3.Controls.Add(Me.TXd2)
    Me.GroupBox3.Controls.Add(Me.TXd1)
    Me.GroupBox3.Controls.Add(Me.Label5)
    Me.GroupBox3.Controls.Add(Me.Button2)
    Me.GroupBox3.Controls.Add(Me.TXr3)
    Me.GroupBox3.Controls.Add(Me.TXr2)
    Me.GroupBox3.Controls.Add(Me.TXr1)
    Me.GroupBox3.Controls.Add(Me.Label3)
    Me.GroupBox3.Font = New System.Drawing.Font("新細明體",
9.75!, System.Drawing.FontStyle.Bold, System.Drawing.GraphicsUnit.Point,
CType(136, Byte))
    Me.GroupBox3.ForeColor = System.Drawing.Color.Blue
    Me.GroupBox3.Location = New System.Drawing.Point(24, 272)
    Me.GroupBox3.Name = "GroupBox3"
    Me.GroupBox3.Size = New System.Drawing.Size(400, 100)
    Me.GroupBox3.TabIndex = 23
    Me.GroupBox3.TabStop = False
    Me.GroupBox3.Text = "Set rescue and demand point"
    ,
    'TXG
    ,
    Me.TXG.ForeColor = System.Drawing.Color.Blue
    Me.TXG.Location = New System.Drawing.Point(320, 24)
    Me.TXG.Name = "TXG"
    Me.TXG.Size = New System.Drawing.Size(56, 23)
    Me.TXG.TabIndex = 10
    Me.TXG.Text = "30"
    ,
    'Label8
    ,
    Me.Label8.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.Label8.Location = New System.Drawing.Point(272, 24)
    Me.Label8.Name = "Label8"
    Me.Label8.Size = New System.Drawing.Size(48, 23)
    Me.Label8.TabIndex = 9
    Me.Label8.Text = "General"

```



```

    Me.Label8.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    ,
    'TXd3
    ,
    Me.TXd3.ForeColor = System.Drawing.Color.Red
    Me.TXd3.Location = New System.Drawing.Point(184, 56)
    Me.TXd3.Name = "TXd3"
    Me.TXd3.Size = New System.Drawing.Size(32, 23)
    Me.TXd3.TabIndex = 8
    Me.TXd3.Text = "17"
    Me.TXd3.TextAlign =
System.Windows.Forms.HorizontalAlignment.Center
    ,
    'TXd2
    ,
    Me.TXd2.ForeColor = System.Drawing.Color.Red
    Me.TXd2.Location = New System.Drawing.Point(152, 56)
    Me.TXd2.Name = "TXd2"
    Me.TXd2.Size = New System.Drawing.Size(32, 23)
    Me.TXd2.TabIndex = 7
    Me.TXd2.Text = "10"
    Me.TXd2.TextAlign =
System.Windows.Forms.HorizontalAlignment.Center
    ,
    'TXd1
    ,
    Me.TXd1.ForeColor = System.Drawing.Color.Red
    Me.TXd1.Location = New System.Drawing.Point(120, 56)
    Me.TXd1.Name = "TXd1"
    Me.TXd1.Size = New System.Drawing.Size(32, 23)
    Me.TXd1.TabIndex = 6
    Me.TXd1.Text = "9"
    Me.TXd1.TextAlign =
System.Windows.Forms.HorizontalAlignment.Center
    ,
    'Label5
    ,
    Me.Label5.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
    Me.Label5.ForeColor = System.Drawing.Color.Red
    Me.Label5.Location = New System.Drawing.Point(16, 56)
    Me.Label5.Name = "Label5"
    Me.Label5.Size = New System.Drawing.Size(96, 24)
    Me.Label5.TabIndex = 5
    Me.Label5.Text = "Demand Points"
    Me.Label5.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
    ,
    'Button2
    ,
    Me.Button2.ForeColor = System.Drawing.Color.Red
    Me.Button2.Location = New System.Drawing.Point(296, 56)
    Me.Button2.Name = "Button2"
    Me.Button2.Size = New System.Drawing.Size(80, 23)
    Me.Button2.TabIndex = 4
    Me.Button2.Text = "Set Points"
    ,

```

```

'TXr3
,
Me.TXr3.ForeColor = System.Drawing.Color.Blue
Me.TXr3.Location = New System.Drawing.Point(184, 24)
Me.TXr3.Name = "TXr3"
Me.TXr3.Size = New System.Drawing.Size(32, 23)
Me.TXr3.TabIndex = 3
Me.TXr3.Text = "60"
Me.TXr3.TextAlign =
System.Windows.Forms.HorizontalAlignment.Center
,
'TXr2
,
Me.TXr2.ForeColor = System.Drawing.Color.Blue
Me.TXr2.Location = New System.Drawing.Point(152, 24)
Me.TXr2.Name = "TXr2"
Me.TXr2.Size = New System.Drawing.Size(32, 23)
Me.TXr2.TabIndex = 2
Me.TXr2.Text = "50"
Me.TXr2.TextAlign =
System.Windows.Forms.HorizontalAlignment.Center
,
'TXr1
,
Me.TXr1.ForeColor = System.Drawing.Color.Blue
Me.TXr1.Location = New System.Drawing.Point(120, 24)
Me.TXr1.Name = "TXr1"
Me.TXr1.Size = New System.Drawing.Size(32, 23)
Me.TXr1.TabIndex = 1
Me.TXr1.Text = "49"
Me.TXr1.TextAlign =
System.Windows.Forms.HorizontalAlignment.Center
,
'Label3
,
Me.Label3.BorderStyle =
System.Windows.Forms.BorderStyle.Fixed3D
Me.Label3.ForeColor = System.Drawing.Color.Blue
Me.Label3.Location = New System.Drawing.Point(16, 24)
Me.Label3.Name = "Label3"
Me.Label3.Size = New System.Drawing.Size(96, 23)
Me.Label3.TabIndex = 0
Me.Label3.Text = "Rescue Points"
Me.Label3.TextAlign =
System.Drawing.ContentAlignment.MiddleCenter
,
'Button5
,
Me.Button5.Location = New System.Drawing.Point(416, 72)
Me.Button5.Name = "Button5"
Me.Button5.TabIndex = 8
Me.Button5.Text = "Button5"
,
'Formtaipei
,
Me.AutoScaleBaseSize = New System.Drawing.Size(5, 15)
Me.ClientSize = New System.Drawing.Size(1016, 686)
Me.Controls.Add(Me.GroupBox3)

```

```

Me.Controls.Add(Me.Label2)
Me.Controls.Add(Me.DG2)
Me.Controls.Add(Me.GBOXgraph)
Me.Controls.Add(Me.GroupBox2)
Me.Controls.Add(Me.GroupBox1)
Me.Controls.Add(Me.DG1)
Me.Controls.Add(Me.Label1)
Me.Controls.Add(Me.Button1)
Me.Name = "Formtaipei"
Me.Text = "A Bi-level Programming Model for Allocating the
Emergency Vehicles in earthquake " &
"Disaster Aras (EXAMPLE:TAIPEI)"
CType(Me.DataSet21,
System.ComponentModel.ISupportInitialize).EndInit()
CType(Me.DG1,
System.ComponentModel.ISupportInitialize).EndInit()
Me.GroupBox1.ResumeLayout(False)
Me.GroupBox2.ResumeLayout(False)
Me.GBOXgraph.ResumeLayout(False)
CType(Me.DG2,
System.ComponentModel.ISupportInitialize).EndInit()
CType(Me.DataSet31,
System.ComponentModel.ISupportInitialize).EndInit()
Me.GroupBox3.ResumeLayout(False)
Me.ResumeLayout(False)

```

End Sub

#End Region

```

Dim maxqbtn As Integer
Dim generaltime, group As Integer
Dim tcapa, tvl As Integer
Dim sts As String
Dim tc, tv As Integer
Dim r1, r2, r3, d1, d2, d3 As Integer
Dim sthpatht(101, 101)
Dim mutation As Integer
Dim crossover As Integer
Dim vageneral As Integer
Dim vaset As Integer

```

```

Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
Me.Hide()
End Sub

```

```

Private Sub Formtaipei_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
general = 30 'generation 'press set button change generaltion
group = 100 'group
Module1.group = group
Module1.general = general
mutation = 1
crossover = 50
vageneral = 0
r1 = TXr1.Text
r2 = TXr2.Text

```

```

r3 = TXr3.Text
d1 = TXd1.Text
d2 = TXd2.Text
d3 = TXd3.Text

OleDbDataAdapter1.Fill(DataSet21)
Dim i, j, k As Integer

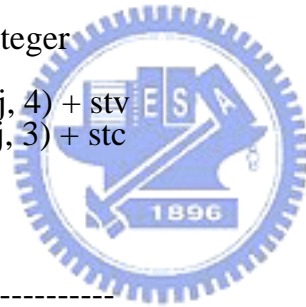
Module1.tgraph = 1
'-----set capacity and travel flow
tcapa = 100
tv1 = 80
Module1.stc = tcapa
Module1.stv = tv1
For i = 0 To 138
    For j = 0 To 5
        Module1.Tnett(i, j) = TNET(i, j)
    Next
Next
tc = tcapa
tv = tv1
For i = 0 To 138
    Module1.netcdt(i) = tc
Next

Dim stc, stv As Integer
For j = 0 To 138
    stv = TNET(j, 4) + stv
    stc = TNET(j, 3) + stc
Next
TXtc.Text = stc
TXtv.Text = stv
'-----
For j = 0 To 138
    DataSet21.dbt.AdddbtRow(Convert.ToInt32(TNET(j, 0)),
Convert.ToInt32(TNET(j, 1)), Convert.ToInt32(TNET(j, 2)),
Convert.ToInt32(TNET(j, 3)), Convert.ToInt32(TNET(j, 4)),
Convert.ToDouble(TNET(j, 5)))
    DG1.Refresh()
Next
' DataSet21.dbt.AdddbtRow()
End Sub

Private Sub BTNvmn_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BTNvmn.Click
    Dim vmn, b As Integer
    b = TXvn.Text
    vmn = b * 3
    TXvm.Text = vmn / 2
    LBvmn.Text = vmn
End Sub

Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BTNgapath.Click
    Dim spo, epo As Integer
    LBOXpath.Items.Clear()
    sts = ""

```



```

sts = DateTime.Now
maxqbtn = 0
LBmin.Text = ""
LBtime.Text = ""
spo = CBOXS.SelectedItem

epo = CBOXE.SelectedItem

If spo = epo Then
    MsgBox("Start point is the same as End point",
MsgBoxStyle.OKOnly + MsgBoxStyle.Exclamation, "!!!Attention!!!")
Else
    gapath(spo, epo)
End If

End Sub

Function gapath(ByVal spo As Integer, ByVal epo As Integer)

    Dim sthpatht(101, 101)
    Dim incsp(12, 3)
    Dim spt As Integer          'all points
    spt = 79 'all points are 79
    Dim shortpath(group, spt)
    Dim point(spt)             'binary 0-not through 1- through
    Dim n As Integer
    Dim singlepatht(79)
    For n = 0 To spt - 1
        point(n) = 0          'set all points 0
    Next

    -----
    Dim shortpath2(group, spt) As Integer
    Dim x, spot As Integer
    spot = 0
    For x = 0 To 78
        singlepatht(x) = 0
        Module1.singlepatht(x) = 0
    Next

    If maxqbtn = 0 Then
        spo = CBOXS.SelectedItem
        epo = CBOXE.SelectedItem
    End If

    spo = Convert.ToInt32(spo)
    epo = Convert.ToInt32(epo)

    If spo = epo Then
        MsgBox("The Start point is the same as End point",
MsgBoxStyle.OKOnly + MsgBoxStyle.Exclamation, "!!!Attention!!!CHOOSE
AGAIN")
    ElseIf spo = 0 Or epo = 0 Then
        MsgBox("The Start point and the End point is empty!!!",
MsgBoxStyle.OKOnly + MsgBoxStyle.Exclamation,
"!!!Attention!!!Empty!!!")
    Else
        spot = spo

```

```

End If

Dim v As Integer

For n = 0 To 99
    For v = 0 To 78
        sthpatht(n, v) = 0
    Next
Next

'-----*****generation*****-----
If spot > 0 Then
    Dim generalltime As Integer 'count generalltime
    Dim generalspt(30, 79) 'for saving each generation shortest path
    Dim fitpt As Integer
    Dim fit(group)
    Dim fitpo(11) As Integer
    Dim fitspt As Integer
    Dim fitrat(spt) As Double

    For generalltime = 1 To general 'general
        *****generalltime*****
        Dim sres As String
        Dim random As Random = New Random() 'use
random
        If generalltime <= 2 Then
            For x = 1 To group
                *****group*****
                Dim ranpoint As Integer
                For n = 0 To spt - 1
                    ranpoint = random.Next(0, 100)
                    If ranpoint <= 50 Then
                        point(n) = 0
                    Else
                        point(n) = 1
                    End If
                Next
                point(spt - 1) = 1
                point(epo - 1) = 1
            Next
        End If
    Next
'-----

    Dim testlink As Integer
    Dim nett1 As Integer
    Dim nett2 As Integer
    Dim m As Integer
    Dim lknode As Integer
    Dim node(spt)
    Dim lk As Integer
    Dim lkx As Integer
    Dim o As Integer
    Dim res As String
    Dim along As Integer
    res = ""

```

```

Dim avoarr(138, 3) As Integer
  For n = 0 To 137
    avoarr(n, 1) = 0
    avoarr(n, 2) = 0
    avoarr(n, 3) = 0
  Next
Dim avo As Integer
Dim av As Integer
Dim hlink As Integer
avo = 0
Dim nalong As Integer
Dim p As Integer
nalong = 0
Dim i, j, mt As Integer
Dim pott(79)
Dim lktt As Integer
p = 1
Dim chp As Integer
chp = 2
testlink = 0

```

'-----

```

If chp = 1 Then
  If p = 1 Then
    For n = 0 To spt - 1
      If point(n) = 1 Then
        hlink = 0
      For m = 0 To lkx
        node(lkx) = 0
      Next
      If testlink = 1 Then 'test whether link
        testlink = 0
        lkx = 0
        For lk = 1 To 138
          If n + 1 = TNET(lk, 1) Then 'save all link points
            node(lkx) = TNET(lk, 2)
            lkx = lkx + 1
          End If
        Next

        Dim lkp As Integer
        lkp = 0
        For m = 0 To spt - 1
          If point(m) = 1 And
m <> n Then 'differentiate if there have link point except itself point
            For lk = 0 To lkx
              If m + 1 = node(lk) Then

                If p = 1 Then

```

'-----method 1 strict

lkp = lkp + 1

```
If n = 0 Or n = 8 Then
```

```
testlink = 1
```

```
ElseIf lkp = 2 Then
```

```
testlink = 1
```

```
End If
```

```
If n = epo - 1 Or n = spo - 1 Then
```

```
If lkp = 2 Then
```

```
nalong = 1
```

```
End If
```

```
End If
```

```
If
```

```
End
```

```
End If
```

```
Next
```

```
End If
```

```
Next
```

```
End If
```

```
End If
```

```
Next
```

```
End If
```



```
ElseIf chp = 2 Then
```

```
'=====method 2 smart
```

```
Dim nt As Integer
```

```
Dim chpo(101, 101)
```

```
For i = 0 To 100
```

```
For j = 0 To 100
```

```
chpo(i, j) = 0
```

```
Next
```

```
Next
```

```
chpo(0, 0) = spo
```

```
Dim k, l As Integer
```

```
Dim cou As Integer
```

```
Dim aval As Integer
```

```
Dim bl As Integer
```

```
Dim fe As Integer
```

```
For nt = 0 To 79
```

```
pott(nt) = 0
```

```
Next
```

```
pott(spo - 1) = 1
```

```
Dim sav As Integer
```



```

aval = 0
fe = 0
For i = 0 To 100
  cou = 0

  For j = 0 To 100
    If chpo(i, j) > 0 Then
      For lktt = 0 To 138
        sav = 0
        bl = 2
        If chpo(i, j) = TNET(lktt,

```

0) Then

1) Then

cou) = epo

point(TNET(lktt, 1) - 1) = 1 Then

cou

+ 1, k) <> TNET(lktt, 1) Then

= 0 To i + 1

For mt = 0 To 100

If TNET(lktt, 1) = chpo(l, mt) Then

sav = 1

End If

Next

TNET(lktt, 1) And bl = 2 Then

0) Then

cou) = epo

```

sav = 2
If epo = TNET(lktt,

```

```

testlink = 1
chpo(i + 1,

```

```

i = 101
j = 101
fe = 1

```

ElseIf

```

bl = 0
For k = 0 To

```

```

If chpo(i

```

```

For l

```

```

Next
End If
Next
End If

```

```

ElseIf chpo(i, j) =

```

```

sav = 2

```

```

If epo = TNET(lktt,

```

```

testlink = 1
chpo(i + 1,

```

```

i = 101

```

point(TNET(lktt, 0) - 1) = 1 Then

cou

+ 1, k) <> TNET(lktt, 0) Then

= 0 To i + 1

For mt = 0 To 100

If TNET(lktt, 0) = chpo(l, mt) Then

sav = 1

End If

Next

cou) = TNET(lktt, 1)

pott(TNET(lktt, 1) - 1) = 1

cou) = TNET(lktt, 0)

pott(TNET(lktt, 0) - 1) = 1

cou = 0 Then

And aval = 1 Then

j = 101
fe = 1
ElseIf

bl = 1
For k = 0 To

If chpo(i

For l

Next

End If

Next

End If

End If

If sav = 2 Then

If bl = 0 Then
chpo(i + 1,

cou = cou + 1

ElseIf bl = 1 Then
chpo(i + 1,

cou = cou + 1

End If

End If

If fe = 1 Then

i = 101

j = 101

ElseIf lktt >= 138 And

aval = 1

If chpo(i, j + 1) = 0

aval = 2

i = 101

j = 101

End If



```

End If
Next
End If

Next
Next
'-----*****
Dim det As Integer
Dim detde As Integer
For i = 0 To 100
    For j = 0 To 100
        If chpo(i, j) > 0 Then
            pott(chpo(i, j) - 1) = 1
        End If
    Next
Next

For nt = 0 To 79
    If pott(nt) = 1 Then
        If point(nt) <> pott(nt) Then
            testlink = 0
        End If
    End If
Next

If aval = 2 Then
    testlink = 0
End If

'-----
If testlink = 1 Then
    For i = 0 To spt - 1
        point(i) = pott(i)
    Next
End If
End If

If testlink = 1 Then
    For n = 0 To spt - 1
        shortpath(x, n) = point(n)
    Next

    'For n = 0 To spt - 1
    '    res = res +
Convert.ToString(shortpath(x, n))
Next
'produce group
Convert.ToString(x))
Else

    x = x - 1

End If

Next
'produce group

```

ElseIf generaltime > 2 Then

```
Dim ptt As Integer
ptt = 0
For x = 1 To group
    Dim rand As Random = New Random()
    Dim rex As Integer

    If rex = 1 Then
        Dim ranpoint As Integer
        ranpoint = rand.Next(0, group)
        For n = 0 To spt - 1
            point(n) = shortpath(ranpoint, n)
        Next
    Else

        For n = 0 To spt - 1
            point(n) = shortpath(x, n)
        Next

    End If
    rex = 0
```

```
point(spo - 1) = 1
point(epo - 1) = 1
```

```
Dim testlink As Integer
Dim nett1 As Integer
Dim nett2 As Integer
Dim m As Integer
Dim lknode As Integer
Dim node(spt)
Dim lk As Integer
Dim lkx, lktt As Integer
Dim o As Integer
Dim res As String
Dim along As Integer
res = ""
testlink = 0
Dim pott(79)
```

```
Dim avoarr(28, 3) As Integer
```

```
Dim avo As Integer
Dim av As Integer
Dim hlink As Integer
avo = 0
Dim nalong As Integer
Dim p As Integer
nalong = 0
Dim i, j As Integer
```

```
p = 1
If p = 1 Then
```

```
Dim nt As Integer
```

```
Dim chpo(101, 101)
```

```
For i = 0 To 100
```

```
    For j = 0 To 100
```

```
        chpo(i, j) = 0
```

```
    Next
```

```
Next
```

```
chpo(0, 0) = spo
```

```
Dim k, l As Integer
```

```
Dim cou As Integer
```

```
Dim aval As Integer
```

```
Dim bl, mt As Integer
```

```
Dim fe As Integer
```

```
fe = 0
```

```
For nt = 0 To 79
```

```
    pott(nt) = 0
```

```
Next
```

```
pott(spo - 1) = 1
```

```
Dim sav As Integer
```

```
aval = 0
```

```
For i = 0 To 100
```

```
    cou = 0
```

```
    For j = 0 To 100
```

```
        If chpo(i, j) > 0 Then
```

```
            For lktt = 0 To 138
```

```
                sav = 0
```

```
                bl = 2
```

```
                If chpo(i, j) = TNET(lktt,
```

```
0) Then
```

```
                    sav = 2
```

```
                    If epo = TNET(lktt,
```

```
1) Then
```

```
                        testlink = 1
```

```
                        chpo(i + 1,
```

```
cou) = epo
```

```
                            i = 101
```

```
                            j = 101
```

```
                            fe = 1
```

```
                    ElseIf
```

```
point(TNET(lktt, 1) - 1) = 1 Then
```

```
                        bl = 0
```

```
                        For k = 0 To
```

```
cou
```

```
                            If chpo(i
```

```
+ 1, k) <> TNET(lktt, 1) Then
```

```
                                For l
```

```
= 0 To i + 1
```

```
For mt = 0 To 100
```

If TNET(lktt, 1) = chpo(l, mt) Then

sav = 1

End If

Next

TNET(lktt, 1) And bl = 2 Then

0) Then

cou) = epo

point(TNET(lktt, 0) - 1) = 1 Then

cou

+ 1, k) <> TNET(lktt, 0) Then

= 0 To i + 1

For mt = 0 To 100

If TNET(lktt, 0) = chpo(l, mt) Then

sav = 1

End If

Next

cou) = TNET(lktt, 1)

pott(TNET(lktt, 1) - 1) = 1

Next
End If
Next
End If

ElseIf chpo(i, j) =

sav = 2
If epo = TNET(lktt,

testlink = 1
chpo(i + 1,

i = 101
j = 101
fe = 1

ElseIf

bl = 1
For k = 0 To

If chpo(i

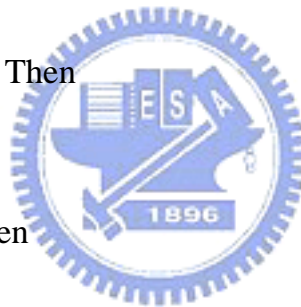
For l

Next
End If
Next
End If
End If

If sav = 2 Then

If bl = 0 Then
chpo(i + 1,

cou = cou + 1




```

th = 0
Dim lkno(79)
For i = 0 To 10
    thpo(i) = 0
    lkno(i) = 0
Next
Dim d As Integer
If testlink = 1 Then

    For i = 100 To 0 Step -1
        For j = 100 To 0 Step -1
            If chpo(i, j) <> 0 Then

                If chpo(i, j) = epo Then
                    thpo(th) = epo
                    For c = 0 To 138
                        If chpo(i, j) =

TNET(c, 0) Then
                            lkno(lkn)
                        = TNET(c, 1)
                            lkn = lkn
                        + 1

                            ElseIf chpo(i,

j) = TNET(c, 1) Then
                            lkno(lkn)
                        = TNET(c, 0)
                            lkn = lkn
                        + 1

                            End If
                    Next
                    th = th + 1
                Else
                    For c = 0 To lkn - 1
                        If chpo(i, j) =

lkno(c) Then
                            thpo(th)
                        = chpo(i, j)
                            For d = 0

To 79
                                Next
                            lkno(d) = 0
                                th = th +

1
                                    lkn = 0
                                To 138
                                    For d = 0

chpo(i, j) = TNET(d, 0) Then
                                        If
                                    lkno(lkn) = TNET(d, 1)

                                    lkn = lkn + 1

                                ElseIf chpo(i, j) = TNET(d, 1) Then

```




```
lkno(lkn) = TNET(d, 0)
```

```
lkn = lkn + 1
```

```
If
```

```
End
```

```
Next
```

```
End If
```

```
Next
```

```
End If
```

```
End If
```

```
Next
```

```
Next
```

```
Dim pthr(79)
```

```
For i = 0 To 79
```

```
    pthr(i) = 0
```

```
Next
```

```
res = ""
```

```
j = 0
```

```
For i = 79 To 0 Step -1
```

```
    If thpo(i) <> 0 Then
```

```
        pthr(j) = thpo(i)
```

```
        If generaltime = general Then
```

```
            sthpatht(x, j) = pthr(j)
```

```
        End If
```

```
        res = res + "/" +
```

```
Convert.ToString(sthpatht(x, j))
```

```
        j = j + 1
```

```
    End If
```

```
Next
```

```
' LBOXpath.Items.Add(res)
```

```
If sthpatht(x, 0) <> 0 Then
```

```
    LBOXpath.Items.Add(res)
```

```
End If
```

```
LBOXpath.Items.Add("=====")
```

```
End If
```

```
End If
```

```
-----
```

```
If testlink = 1 Then
```

```
    For i = 0 To spt - 1
```

```
        point(i) = pott(i)
```

```
    Next
```

```
End If
```

```

        If testlink = 1 Then
            For n = 0 To spt - 1
                shortpath(x, n) = point(n)
            Next

            For n = 0 To spt - 1
                res = res +
Convert.ToString(shortpath(x, n))
            Next
            ' LBOXpath.Items.Add(res +
Convert.ToString(x))
        Else
            rex = 1
            x = x - 1
        End If

```

```

    Next

```

```

End If

```

```

Dim chsp(group, 2)
Dim lk2 As Integer
Dim lkp2 As Integer
Dim node2(79) As Integer
Dim m2 As Integer
Dim clkpd As Integer
Dim lkp2(79, 3)
Dim lka As Integer
Dim lkt As Integer
Dim a As Integer
Dim sp As Integer

```

```

For x = 1 To group
    lka = 0
    clkpd = 0
    lkp2 = 0
    For a = 0 To 28
        For sp = 0 To 2
            lkp2(a, sp) = 0
        Next
    Next
Next

```

```

For n = 0 To spt - 1
    If shortpath(x, n) = 1 Then
        lkp2 = 0
        For lk2 = 1 To 138
            If n + 1 = TNET(lk2, 1) Then
                node2(lkp2) = TNET(lk2, 0)
                lkp2 = lkp2 + 1
            ElseIf n + 1 = TNET(lk2, 0) Then
                node2(lkp2) = TNET(lk2, 1)
                lkp2 = lkp2 + 1
            End If
        Next
    End If
Next

```

```

Dim tlk1 As Integer
Dim tlk2 As Integer
For m2 = 0 To spt - 1
    If shortpath(x, m2) = 1 And m2 <> n
Then
        For lk2 = 0 To lkp2 - 1
            If m2 + 1 = node2(lk2) Then
                lkt = 1
'-----
                For a = 0 To lka
                    tlk1 = lkp2(a, 1)
                    tlk2 = lkp2(a, 2)
                    If m2 + 1 = tlk1
And n + 1 = tlk2 Then
                        lkt = 1
'-----
                    LBOXpath.Items.Add(Convert.ToString(m2) + "/" + Convert.ToString(n))
                    Else
                        lkt = 0
                    End If
                Next
'-----
                If lkt = 0 Then
                    tlk1 = n + 1
                    tlk2 = m2 + 1
                    lkp2(lka, 1) = n + 1
                    lkp2(lka, 2) = m2 +
1
                    For a = 0 To lka
                        If tlk1 =
lkp2(a, 2) And tlk2 = lkp2(a, 1) Then
                            lka = lka
- 1
                        End If
                    Next
                    LBOXpath.Items.Add(Convert.ToString(lkp2(lka, 1)) + "-" +
Convert.ToString(lkp2(lka, 2)) + "/")
                    lka = lka + 1
                End If
            End If
        Next
    End If
Next
Next
'For a = 0 To lka - 1
'    LBOXpath.Items.Add(Convert.ToString(lkp2(a,

```



```

1)) + "-" + Convert.ToString(lkpd(a, 2)) + "/"")

        'Next
        Dim cs(79) As Integer

        For a = 0 To lka - 1
            cs(lkpd(a, 1) - 1) = 1
            cs(lkpd(a, 2) - 1) = 1
        Next

        For a = 0 To spt - 1
            shortpath(x, a) = cs(a)
        Next

        For m2 = 0 To lka - 1
            ' For sp = 0 To 2
            '     sres = sres + Convert.ToString(lkpd(1, sp))
+ "-"
            '     Next
            '     sres = sres + "\"
        Next
        'LBOXpath.Items.Add(sres)
        'sres = ""
        'LBOXpath.Items.Add("=====" +
Convert.ToString(x))

        Dim t0x As Double
        Dim vlcl4 As Double
        Dim min As Double
        t0x = 0
        Dim b As Integer
        For b = 0 To lka - 1
            For a = 0 To 138
                If TNET(a, 0) = lkpd(b, 1) And TNET(a, 1)
= lkpd(b, 2) Then
                    vlcl4 = (tv / tc) ^ 4
                    t0x = TNET(a, 5) * (1 + (0.15 * vlcl4))
+ t0x
                ElseIf TNET(a, 1) = lkpd(b, 1) And TNET(a,
0) = lkpd(b, 2) Then
                    vlcl4 = (tv / tc) ^ 4
                    t0x = TNET(a, 5) * (1 + (0.15 * vlcl4))
+ t0x
                End If
            Next
        Next

        Dim ti As Double
        Dim tijc As Double
        Dim tijc As Single
        tijc = 0
        For b = 0 To lka - 1
            For a = 0 To 138
                If TNET(a, 0) = lkpd(b, 1) And TNET(a, 1)
= lkpd(b, 2) Then
                    ti = TNET(a, 5)
                    ElseIf TNET(a, 1) = lkpd(b, 1) And TNET(a,

```

```

0) = lkpd(b, 2) Then
    ti = TNET(a, 5)
    End If
    Next
    tijc = Math.Log10(ti)
    tajs = ((ti * tijc) - ti) + tajs
Next

min = t0x + (tajs * (1 / 0.5))
chsp(x, 1) = t0x
' LBOXpath.Items.Add(Convert.ToString(ti) + "/" +
Convert.ToString(tijc) + "/" + Convert.ToString(tajs))
' LBOXpath.Items.Add(Convert.ToString(t0x))

Next
'

Dim ssp As Double
Dim inc As Integer
inc = 0

Dim torder As Integer
For x = 1 To group
    ssp = 0
    ssp = chsp(x, 1)

    If x = 1 Then
        For inc = 0 To 9
            incsp(inc, 1) = x
            incsp(inc, 2) = ssp
        Next
        LBOXpath.Items.Add(chsp(x, 2))
    End If

    torder = 10

    For a = 9 To 1 Step -1
        If ssp < incsp(a, 2) And ssp <> incsp(a - 1, 2)
Then
            torder = a
        ElseIf ssp = incsp(a, 2) Or ssp = incsp(a - 1, 2)
Then
            torder = 10
        End If
        If ssp < incsp(0, 2) Then
            torder = a - 1
        End If
    Next

    Dim ora As Integer
    For a = 0 To 9
        If torder = a And a < 9 Then
            If ssp < incsp(a + 1, 2) Then
                For ora = a To 8
                    incsp(a + 1, 1) = incsp(a, 1)
                    incsp(a + 1, 2) = incsp(a, 2)

```

```

        Next
        incsp(a, 1) = x
        incsp(a, 2) = ssp
    End If

    ElseIf torder = a And a = 9 Then
        incsp(a, 1) = x
        incsp(a, 2) = ssp
    End If
Next

Next

For a = 0 To group - 1
    Module1.generalpointt(generaltime - 1, a) = chsp(a +
1, 1)
    ' LBOXpath.Items.Add(incsp(a, 2))
'LBOXpath.Items.Add(Module1.generalpoint(generaltime - 1, a))
Next
,
LBOXpath.Items.Add(Convert.ToString(incsp(0, 2)) + "/" +
Convert.ToString(incsp(1, 2)) + "/" + Convert.ToString(incsp(2, 2)) + "/" +
Convert.ToString(incsp(3, 2)) + "/" + Convert.ToString(incsp(4, 2)) + "/" +
Convert.ToString(incsp(5, 2)) + "/" + Convert.ToString(incsp(6, 2)) + "/" +
Convert.ToString(incsp(7, 2)) + "/" + Convert.ToString(incsp(8, 2)) + "/" +
Convert.ToString(incsp(9, 2)))
For a = 1 To 79
    generalspt(generaltime, a) = shortpath(incsp(0, 1), a -
1)

Next
generalspt(generaltime, 0) = incsp(0, 1)
generalspt(generaltime, 79) = incsp(0, 2)

If generaltime = general Then
    For a = 0 To 79
        Module1.sthpatht(a) = sthpatht(incsp(0, 1), a)
    Next
End If

Module1.generalspt(generaltime - 1, 79) =
generalspt(generaltime - 1, 79) * 10
'save shortest path this generation

Dim gensp As String
gensp = ""
For a = 0 To 79

```


End If

```
'For x = 1 To sx - 1
'   sres = ""
'   For n = 0 To spt - 1
'       sres = sres + Convert.ToString(shortpath2(x, n))
'   Next
'   LBOXpath.Items.Add(sres)
'Next
```

```
Dim ratpo As Integer
Dim sumpo As Integer
Dim ratgap As Double
sumpo = 0
ratpo = 0
ratgap = 0
Dim sumr As Integer
sumr = 0
Dim ppr As Integer
ppr = 1
Dim sum As Integer
sum = 0
For a = 0 To 9
    fitrat(n) = 0
Next
If ppr = 1 Then
    Dim per(10) As Integer

    For a = 0 To 9
        per(a) = 100 - incsp(a, 2)
        sum = sum + per(a)
    
```

```
LBOXpath.Items.Add(Convert.ToString(sum))
Next
```

```
For n = 0 To 9
    fitrat(n) = Convert.ToInt16((per(n) / sum) * 100)
    If n > 0 Then
        fitrat(n) = fitrat(n - 1) + fitrat(n)
    End If

```

```
LBOXpath.Items.Add(Convert.ToString(fitrat(n)))
Next
sumr = fitrat(9)
```

```
LBOXpath.Items.Add(sumr)
```

```
Dim rant As Random = New Random()
```

```
'For x = 1 To sx - 1
'   sres = ""
'   For n = 0 To spt - 1
'       sres = sres + Convert.ToString(shortpath2(x,
```



```

n))
'      Next
'      LBOXpath.Items.Add(sres)
'Next

For x = 1 To group
  Dim genran As Integer
  genran = rant.Next(0, sumr)

LBOXpath.Items.Add(Convert.ToString(genran))
  For n = 0 To 9

    If n = 0 Then
      If genran <= fitrat(n) Then
        For a = 0 To spt - 1
          shortpath(x, a) =
shortpath2(n + 1, a)
          Next

        End If
      ElseIf n > 0 Then
        If genran < fitrat(n) And genran >
fitrat(n - 1) Then
          For a = 0 To spt - 1
            shortpath(x, a) =
shortpath2(n + 1, a)
          Next
        End If
      End If
    Next
  Next

  For x = 1 To group
  '      sres = ""
  '      For n = 0 To spt - 1
  '          sres = sres + Convert.ToString(shortpath(x,
n))
  '      Next
  '      LBOXpath.Items.Add(sres + "/" +
Convert.ToString(x))
  'Next
'-----
  ElseIf ppr = 2 Then

    For n = 0 To spt - 1
      sumpo = sumpo + fitpo(n)
    Next
    ' LBOXpath.Items.Add(Convert.ToString(sumpo))
    For n = 0 To spt - 1
      fitrat(n) = fitpo(n) / sumpo
      If n = epo - 1 Or n = spo - 1 Then
        fitrat(n) = 1
      End If

      fitrat(n) = fitrat(n) * 100
      fitrat(n) = Convert.ToInt16(fitrat(n))

```



Next

End If

```
Dim ran As Random = New Random()  
Dim mat As Integer  
Dim matpo As Integer  
Dim ranc As Random = New Random  
Dim cro As Integer
```

```
Dim mat1 As Integer  
Dim mat2 As Integer
```

```
cro = ranc.Next(1, 100)
```

```
If cro <= crossover Then
```

```
  For mat = 1 To group - 1
```

```
    For n = 0 To spt - 1
```

```
      matpo = ran.Next(0, 79)
```

```
      'LBOXpath.Items.Add(matpo)
```

```
    Next
```

```
    mat1 = shortpath(mat, matpo)
```

```
    mat2 = shortpath(mat + 1, matpo)
```

```
    If mat2 = 1 Then
```

```
      shortpath(mat, matpo) = mat2
```

```
      shortpath(mat + 1, matpo) = mat1
```

```
    Else
```

```
      'LBOXpath.Items.Add("!")
```

```
    End If
```

```
  Next
```

```
End If
```

```
Dim ran2 As Random = New Random  
Dim ran3 As Random = New Random  
Dim ranm As Random = New Random
```

```
Dim mut As Integer  
Dim mut2 As Integer  
Dim y As Integer  
Dim mutp As Integer
```

```
For y = 1 To group
```

```
  mut2 = ran2.Next(1, 100)
```

```
  If mut2 <= mutation Then
```

```
    mut = ran3.Next(0, 79)
```

```
    mutp = shortpath(y, mut)
```

```
  End If
```

```
  'LBOXpath.Items.Add(mut)
```

```

        If mut + 1 = epo Or mut + 1 = spo Then
            mutp = 1
        Else
            If mutp = 0 Then
                mutp = 1
            Else
                mutp = 0
            End If

            shortpath(y, mut) = mutp

        End If
    Next

    For x = 1 To group
        sres = ""
        For n = 0 To spt - 1
            sres = sres + Convert.ToString(shortpath(x, n))
        Next

        ' LBOXpath.Items.Add(sres)
    Next
Next

LBmin.Text = incsp(0, 2)
Dim tt As Integer
For tt = 0 To 78
    singlepatht(tt) = generalspt(generaltime - 1, tt + 1)
    Module1.singlepatht(tt) = singlepatht(tt)
Next
Dim srest As String

'For n = 0 To 79
'    srest = srest + "/" + Convert.ToString(singlepatht(n))
'Next

'LBOXpath.Items.Add(srest)

'*****

End If
LBtime.Text = (Convert.ToString(Duration_By_Second(sts,
DateTime.Now)))
End Function

Private Sub BTNmaxq_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BTNmaxq.Click

```

```

DataSet31.ga.Clear()
DG2.Refresh()
Dim b, vmn, a As Integer
For a = 0 To 100
    For b = 0 To 100
        Module1.maxqst(a, b) = 0
        Module1.maxqmaxt(a) = 0
    Next
Next

```

Next

```
b = TXvn.Text
vmn = b * 3
TXvm.Text = vmn / 2
maxqbtn = 1
LBOXpath.Items.Clear()
sts = ""
sts = DateTime.Now
maxqga(r1, r2, r3, d1, d2, d3)
End Sub
```

Function maxqga(ByVal r1 As Integer, ByVal r2 As Integer, ByVal r3 As Integer, ByVal d1 As Integer, ByVal d2 As Integer, ByVal d3 As Integer)

```
Module1.STT = 1
'coculation each shortpath
Dim a, b As Integer
Dim netcd(101, 138)
Dim netvmn(101, 3) ' each demand points has vm
Dim nvmnt(101, 138)
Dim netvijt(101, 138)
Dim maxqs(101)
Dim maxqod(5, 2)
Dim netvijet(101, 138)
Dim vpiji As Integer
Dim vije As Integer
Dim maxqtl As Integer
Dim vmns As Integer
Dim vijs As Integer
```



```
For b = 0 To 100
  For a = 0 To 138
    netcd(b, a) = 0
    netvijt(b, a) = 0
  Next
Next
```

algorithm *****Starting maxq GA*****

```
Dim tn As Integer
Dim generq As Integer
Dim x, c As Integer
Dim chca As Integer
Dim ncd As Integer
Dim thptht(9, 79)
Dim res As String 'save path value
Dim i, j As Integer
r1 = TXr1.Text 'r means rescue
r2 = TXr2.Text
r3 = TXr3.Text
d1 = TXd1.Text 'd means demand
d2 = TXd2.Text
d3 = TXd3.Text
```

```

Dim epot() As Integer = {d1, d2, d3} 'set all end points
Dim chpath1(3, 79), chpath2(3, 79), chpath3(3, 79)
Dim spo As Integer
Dim thpth(9, 79)
'*****count each shortpath*****

spo = r1
For i = 0 To 2
    For j = 0 To 79
        Module1.singlepatht(j) = 0
        Module1.sthpatht(j) = 0
    Next
    gapath(spo, epot(i))

    For j = 0 To 79
        chpath1(i, j) = Module1.singlepatht(j)
        thpth(i, j) = Module1.sthpatht(j)
    Next
    res = ""
    For j = 0 To 79
        'res = res + "/" + Convert.ToString(chpath1(i, j))
        res = res + "/" + Convert.ToString(thpth(i, j))
    Next
    LBOXpath.Items.Add(res)
Next

```

```

spo = r2
For i = 0 To 0
    For j = 0 To 79
        Module1.singlepatht(j) = 0
        Module1.sthpatht(j) = 0
    Next
    gapath(spo, epot(i))
    For j = 0 To 79
        chpath2(i, j) = Module1.singlepatht(j)
        thpth(i + 3, j) = Module1.sthpatht(j)
    Next

    res = ""
    'For j = 0 To 79
    '    res = res + "/" + Convert.ToString(chpath2(i, j))
    'Next
    LBOXpath.Items.Add(res)
Next

```

```

spo = r3
For i = 0 To 2
    For j = 0 To 79
        Module1.singlepatht(j) = 0
        Module1.sthpatht(j) = 0
    Next
    gapath(spo, epot(i))
    For j = 0 To 79
        chpath3(i, j) = Module1.singlepatht(j)
        thpth(i + 6, j) = Module1.sthpatht(j)
    Next

```

```

res = ""
'For j = 0 To 79
'    res = res + "/" + Convert.ToString(chpath3(i, j))
'Next
'LBOXpath.Items.Add(res)
Next

'test value use less count time*****

'For i = 0 To 2
'    For j = 0 To 79
'        chpath1(i, j) = 0
'        chpath2(i, j) = 0
'        chpath3(i, j) = 0
'    Next
'Next

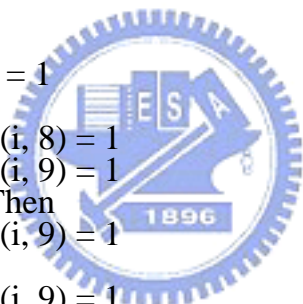
'For i = 0 To 2
'    chpath1(i, 1) = 1
'    For j = 8 To i + 8
'        chpath1(i, j) = 1
'    Next
'Next

'For i = 0 To 2
'    chpath1(i, 2) = 1
'    If i = 0 Then
'        chpath2(i, 8) = 1
'        chpath2(i, 9) = 1
'    ElseIf i = 1 Then
'        chpath2(i, 9) = 1
'    Else
'        chpath2(i, 9) = 1
'        chpath2(i, 10) = 1
'    End If
'Next

'For i = 0 To 2
'    chpath1(i, 3) = 1
'    For j = 10 To i + 8 Step -1
'        chpath3(i, j) = 1
'    Next
'Next

*****for test thpth***** change
original thpth into thpth(9,79)
Dim thpth(,) = {{2, 9, 0, 0, 0}, {2, 9, 10, 0, 0}, {2, 9, 10, 11, 0}, {3,
10, 9, 0, 0}, {3, 10, 0, 0, 0}, {3, 10, 11, 0, 0}, {4, 11, 10, 9, 0}, {4, 11, 10, 0, 0},
{4, 11, 0, 0, 0}}

```



```
Dim gvmp(9), gperp(9, 8)
```

```
Dim vmper(5, 83)
```

```
For generq = 1 To general 'general  
*****general value
```

```
For a = 0 To 100  
For b = 0 To 2  
netvmn(a, b) = 0
```

```
Next
```

```
For c = 0 To 138  
nvmnt(a, c) = 0
```

```
Next
```

```
Next
```

```
For a = 0 To 4  
For b = 0 To 83  
vmper(a, b) = 0
```

```
Next
```

```
Next
```

```
For a = 0 To 4  
For b = 0 To 2  
maxgod(a, b) = 0
```

```
Next
```

```
Next
```

```
Dim limt As Integer
```

```
For x = 1 To 100
```

```
For b = 0 To 100  
For a = 0 To 138  
netcd(b, a) = TNET(a, 3)  
Module1.netcdt(a) = TNET(a, 3)  
netvijt(b, a) = TNET(a, 4)
```

```
Next
```

```
Next
```

```
maxqtl = 1
```

```
For a = 0 To 2  
netvmn(x, a) = 0
```

```
Next
```

```
For c = 0 To 138  
nvmnt(x, c) = 0  
netcd(x, c) = TNET(c, 3)
```

```
Next
```

```
Dim pathper(9, 8)
```

```
Dim pathvpije(2)
```

```

Dim vmpath(9)
Dim pathperin(9)
Dim random As Random = New Random()
Dim rp As Integer
Dim ran As Random = New Random()

```

```

If generq = 1 Then

```

```

    For a = 0 To 8

```

```

        rp = random.Next(0, 100)

```

```

        If rp <= 50 Then
            vmpath(a) = 0
        ElseIf rp > 50 Then
            vmpath(a) = 1
        End If

```

```

    Next

```

```

    For a = 0 To 8

```

```

        ' vmpath(a) = 1

```

```

    Next

```

```

    For b = 0 To 8

```

```

        pathperin(b) = 0

```

```

    Next

```

```

    For b = 0 To 8

```

```

        limt = 0

```

```

        For a = 0 To 7

```

```

            rp = ran.Next(0, 100)

```

```

            If rp < 50 Then

```

```

                pathper(b, a) = 1

```

```

            Else

```

```

                pathper(b, a) = 0

```

```

            End If

```

```

        Next

```

```

        pathper(b, 7) = 0

```

```

        For a = 0 To 8

```

```

            If pathper(b, a) = 1 Then

```

```

                limt = limt + 2 ^ a

```

```

            End If

```

```

        Next

```

```

        If limt > 100 Or limt = 0 Then

```

```

            b = b - 1

```

```

        Else

```

```

            ' LBOXpath.Items.Add(limt)

```

```

            pathperin(b) = limt

```

```

        End If

```

```

    Next

```



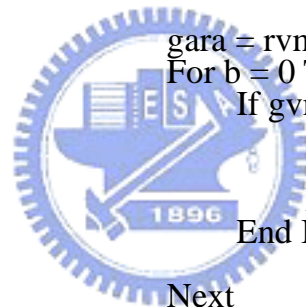
```
ElseIf generq > 1 Then
```

```
Dim gvmp(6), gperp(6, 8)  
Dim rvm As Random = New Random()  
Dim rper As Random = New Random()  
Dim gvmp, gperper As Integer  
Dim ap, crm As Integer  
Dim vmpath1(9)
```

```
Dim gara As Integer  
gvmp = gperper = 0  
gara = 0
```

```
For a = 0 To 8  
    vmpath(a) = 0  
    vmpath1(a) = 0  
Next
```

```
For crm = 1 To 2  
    For a = 0 To 8  
        If gvmp(a) <> 0 Then
```



```
gara = rvm.Next(0, 100)  
For b = 0 To 8  
    If gvmp(b) <> 0 Then  
        If gara <= gvmp(b) Then  
            vmpath(b) = 1  
        End If  
    End If  
End If
```

```
Next  
    LBOXpath.Items.Add(vmpath(a))  
ElseIf gvmp(a) = 0 Then  
    vmpath(a) = rvm.Next(0, 2)  
End If
```

```
Next
```

```
For b = 0 To 8  
    pathperin(b) = 0  
Next
```

```
For ap = 0 To 8  
    For a = 0 To 7  
        pathper(ap, a) = 0  
    Next  
Next
```

```
For a = 0 To 8  
    For b = 0 To 7  
        gperp(a, b) = Convert.ToInt32(gperper(a,
```

b) / 2)

```
Next  
Next  
Dim cr As Integer  
Dim pathper1(8)
```

```

For ap = 0 To 8
  limit = 0
  For cr = 0 To 1
    For a = 0 To 7
      If gperp(ap, a) <> 0 Then
        gara = rper.Next(0, 100)
        For b = 0 To 7
          If gperp(ap, b) <> 0
            Then
              If gara <= gperp(ap,
                b)
                pathper(ap, b)
                = 1
            Then
              End If
            ElseIf gperp(ap, a) = 0 Then
              'pathper(ap, a) = rper.Next(0,
                2)
              End If
            Next
          If cr = 0 Then
            For a = 0 To 7
              pathper1(a) = pathper(ap, a)
            Next
          End If
        Next
      pathper(ap, 7) = 0
      'crossover
      Dim crn As Random = New Random
      Dim crpt As Random = New Random

      Dim crt As Integer
      Dim cpt As Integer

      crt = crn.Next(1, 100)
      If crt <= crossover Then
        For a = 0 To 2
          cpt = crpt.Next(0, 7)
          If pathper1(cpt) = 1 Then
            pathper(ap, cpt) = 1
          End If
        Next
      End If

      For a = 0 To 7
        If pathper(ap, a) = 1 Then
          limit = limit + 2 ^ a
        End If
      Next

      Dim ag As Integer
      ag = 0
      If limit > 100 Or limit = 0 Then

```

```

For a = 0 To 7
    rp = ran.Next(0, 100)
    If rp < 50 Then
        pathper(ap, a) = 1
    Else
        pathper(ap, a) = 0
    End If
Next
pathper(ap, 7) = 0
For a = 0 To 7
    If pathper(ap, a) = 1 Then
        limt = limt + 2 ^ a
    End If
Next

If limt <= 100 Then
    ' LBOXpath.Items.Add(limt)
    pathperin(ap) = limt
Else
    ag = 1
End If
Else
    ' LBOXpath.Items.Add(limt)
    pathperin(ap) = limt
End If

If limt > 100 And ag = 1 Then
    ap = ap - 1
End If

Next
Dim crp As Integer
cr = 0
Dim cran As Random = New Random

If crm = 1 Then

    For a = 0 To 8
        vmpath1(a) = vmpath(a)
    Next
Else 'crossover
    cr = ran.Next(1, 100)
    For a = 0 To 2
        crp = cran.Next(0, 9)
        If cr <= crossover Then
            If vmpath1(crp) = 1 Then
                vmpath(crp) = 1
            End If
        End If
    Next
End If

Next
End If

Next

```

```

Dim ran2 As Random = New Random
Dim ran3 As Random = New Random
Dim mut As Integer
Dim mut2 As Integer
Dim y As Integer
Dim mutp As Integer

```

```
mut = 0
```

```

mut2 = ran2.Next(1, 100)
If mut2 <= mutation Then
    mut = ran3.Next(0, 9)
    mutp = vmpath(mut)
End If

```

```

'LBOXpath.Items.Add(mut)
If mutp = 0 Then
    mutp = 1
Else
    mutp = 0

```

```
End If
```

```
vmpath(mut) = mutp
```

```

mut = 0
For a = 0 To 8
    mut2 = ran2.Next(1, 100)
    If mut2 <= mutation Then
        mut = ran3.Next(0, 8)
        mutp = pathper(a, mut)
    End If
    'LBOXpath.Items.Add(mut)
    If mutp = 0 Then
        mutp = 1
    Else
        mutp = 0

```

```
End If
```

```
pathper(a, mut) = mutp
```

```
Next
```

```
End If
```

```

Dim vmpa As Integer
Dim pvm As Integer
For vmpa = 0 To 8

```

```
    If vmpath(vmpa) = 1 Then
```

```

        If vmpa <= 2 Then
            chca = 0
            For i = 0 To 79

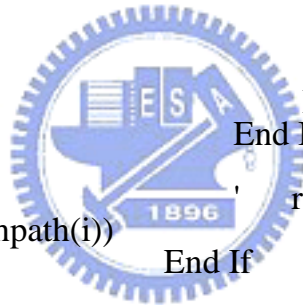
```

```
                If thpth(vmpa, i) = 0 Then
```

```

        i = 79
    Else
        If thpth(vmpa, i + 1) <> 0 Then
            For a = 0 To 138
                If TNET(a, 0) =
thpth(vmpa, i) And TNET(a, 1) = thpth(vmpa, i + 1) Then
                    If netcd(x, a) <=
chca Then
                        chca = netcd(x,
a) 'find
                        ElseIf chca = 0
Then
                            chca = netcd(x,
a)
                        End If
                    ElseIf (TNET(a, 1) =
thpth(vmpa, i) And TNET(a, 0) = thpth(vmpa, i + 1)) Then
                        If netcd(x, a) <=
chca Then
                            chca = netcd(x,
a)
                            ElseIf chca = 0
Then
                                chca = netcd(x,
a)
                            End If
                        End If
                    Next
                End If
                res = res + "/" +
convert.toString(module1.sthpath(i))
            End If
        Next
    pvm = Convert.ToInt16(chca *
(pathperin(vmpa) / 100))
    If pvm >= TXvn.Text Then
        pvm = TXvn.Text
    End If
    netvmn(x, vmpa) = pvm
    For i = 0 To 79
        tn = 0
        If thpth(vmpa, i) = 0 Then
            i = 79
        Else
            If thpth(vmpa, i + 1) <> 0 Then
                For a = 0 To 138
                    If TNET(a, 1) =
thpth(vmpa, i) And TNET(a, 0) = thpth(vmpa, i + 1) Then
                        nvmnt(x, a) = pvm
                    + nvmnt(x, a)
                        ncd = netcd(x, a) -
pvm
                            netcd(x, a) = ncd
                            netvijt(x, a) = 0
                            tn = tn + 1
                    End If
                Next
            End If
        End If
    Next

```



```

thpth(vmpa, i) And TNET(a, 1) = thpth(vmpa, i + 1) Then
+ nvmnt(x, a)
pvm
ElseIf TNET(a, 0) =
nvmnt(x, a) = pvm
ncd = netcd(x, a) -
netcd(x, a) = ncd
netvijt(x, a) = 0
tn = tn + 1
End If
Next
End If
End If
Next
pvm = 0

```

```

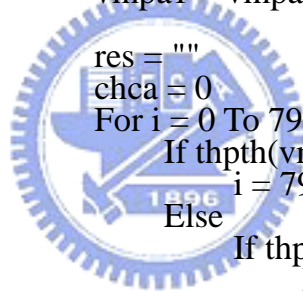
ElseIf vmpa > 2 And vmpa < 6 Then

```

```

Dim vmpa1 As Integer
vmpa1 = vmpa - 3

```



```

res = ""
chca = 0
For i = 0 To 79
If thpth(vmpa, i) = 0 Then
i = 79
Else
If thpth(vmpa, i + 1) <> 0 Then
For a = 0 To 138
If TNET(a, 0) =
thpth(vmpa, i) And TNET(a, 1) = thpth(vmpa, i + 1) Then
If netcd(x, a) <= chca Then
chca = netcd(x, a) 'find
ElseIf chca = 0 Then
chca = netcd(x, a)
End If
ElseIf (TNET(a, 1) =
thpth(vmpa, i) And TNET(a, 0) = thpth(vmpa, i + 1)) Then
If netcd(x, a) <= chca Then
chca = netcd(x, a)
ElseIf chca = 0 Then
chca = netcd(x, a)
End If
End If
Next
End If
' res = res + "/" +
Convert.ToString(Module1.sthpath(i))
End If

```

```

Next

```

```

pvm = Convert.ToInt16(chca *

```

(pathperin(vmpa) / 100))

Then

```
If pvm >= TXvn.Text Then
    pvm = TXvn.Text
End If
```

```
If pvm + netvmn(x, vmpa1) >= TXvn.Text
```

```
    pvm = TXvn.Text - netvmn(x, vmpa1)
End If
netvmn(x, vmpa1) = pvm
```

```
For i = 0 To 79
```

```
    tn = 0
```

```
    If thpth(vmpa, i) = 0 Then
```

```
        i = 79
```

```
    Else
```

```
        If thpth(vmpa, i + 1) <> 0 Then
```

```
            For a = 0 To 138
```

```
                If TNET(a, 1) =
```

```
thpth(vmpa, i) And TNET(a, 0) = thpth(vmpa, i + 1) Then
```

```
                    nvmnt(x, a) = pvm
```

```
+ nvmnt(x, a)
```

```
                    ncd = netcd(x, a) -
```

```
pvm
```

```
                    netcd(x, a) = ncd
```

```
                    netvijt(x, a) = 0
```

```
                    tn = tn + 1
```

```
                ElseIf TNET(a, 0) =
```

```
thpth(vmpa, i) And TNET(a, 1) = thpth(vmpa, i + 1) Then
```

```
                    nvmnt(x, a) = pvm
```

```
+ nvmnt(x, a)
```

```
                    ncd = netcd(x, a) -
```

```
pvm
```

```
                    netcd(x, a) = ncd
```

```
                    netvijt(x, a) = 0
```

```
                    tn = tn + 1
```

```
                End If
```

```
            Next
```

```
        End If
```

```
    End If
```

```
Next
```

```
pvm = 0
```

```
ElseIf vmpa > 5 Then
```

```
Dim vmpa1 As Integer
```

```
vmpa1 = 0
```

```
vmpa1 = vmpa - 6
```

```
res = ""
```

```
chca = 0
```

```
For i = 0 To 79
```

```
    If thpth(vmpa, i) = 0 Then
```

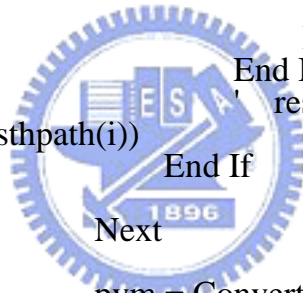
```
        i = 79
```

```
    Else
```

```

If thpth(vmpa, i + 1) <> 0 Then
  For a = 0 To 138
    If TNET(a, 0) =
thpth(vmpa, i) And TNET(a, 1) = thpth(vmpa, i + 1) Then
      If netcd(x, a) <=
chca Then
        chca = netcd(x,
a) 'find
        ElseIf chca = 0
Then
        chca = netcd(x,
a)
      End If
thpth(vmpa, i) And TNET(a, 0) = thpth(vmpa, i + 1)) Then
      ElseIf (TNET(a, 1) =
chca Then
        If netcd(x, a) <=
a)
        chca = netcd(x,
Then
        ElseIf chca = 0
a)
        chca = netcd(x,
      End If
      End If
      Next
      End If
      ' res = res + "/" +
Convert.ToString(Module1.sthpath(i))
      End If
      Next
      pvm = Convert.ToInt16(chca *
(pathperin(vmpa) / 100))
      If pvm >= TXvm.Text Then
        pvm = TXvm.Text
      End If
      If pvm + netvmn(x, vmpa1) >= TXvn.Text
Then
        pvm = TXvn.Text - netvmn(x, vmpa1)
      End If
      netvmn(x, vmpa1) = pvm
      For i = 0 To 79
        tn = 0
        If thpth(vmpa, i) = 0 Then
          i = 79
        Else
          If thpth(vmpa, i + 1) <> 0 Then
            For a = 0 To 138
              If TNET(a, 1) =
thpth(vmpa, i) And TNET(a, 0) = thpth(vmpa, i + 1) Then
                nvmnt(x, a) = pvm
+ nvmnt(x, a)
                ncd = netcd(x, a) -
pvm
                netcd(x, a) = ncd

```




```

netvijt(x, a) = 0
tn = tn + 1
ElseIf TNET(a, 0) =
thpth(vmpa, i) And TNET(a, 1) = thpth(vmpa, i + 1) Then
+ nvmnt(x, a)
pvm
nvmnt(x, a) = pvm
ncd = netcd(x, a) -
netcd(x, a) = ncd
netvijt(x, a) = 0
tn = tn + 1
End If
Next
End If
End If
Next
pvm = 0
End If
End If
Next
For a = 0 To 138
If netcd(x, a) < 0 Then
maxqtl = 0
End If
Next
vmns = 0
For a = 0 To 2
vmns = netvmn(x, a) + vmns
Next
For a = 0 To 2
vmns = netvmn(x, a) + vmns
Next
If vmns <= 0 Then
maxqtl = 0
End If
Dim vep As Integer
vep = 1
If vep = 1 And maxqtl = 1 Then
If maxqtl = 1 Then
vije = 0
vijs = 0

```

Dim pavij(5)

```

Dim chc1, chc2 As Integer
Dim cd1, cd2 As Integer
chc1 = 0
chc2 = 0
cd1 = 0
cd2 = 0
Dim chpo(100, 100)
Dim chpocd(100, 100)
Dim chs As Integer
Dim cou As Integer
Dim aval As Integer
Dim nopt As Integer
Dim k, l, lk, m, m3 As Integer
Dim sav As Integer
Dim ae As Integer
Dim outpt() = {1, 7, 8, 16, 24, 25, 31, 41, 71, 72,
73, 75, 76, 78, 79}

```

```

Dim opt As Integer
Dim tnett(138)
Dim tnode(79) As Integer

```

```

For a = 0 To 138
    netvijet(x, a) = 0
Next

```

```

For a = 0 To 138
    netcd(x, a) = netcd(x, a) - netvijt(x, a)
Next

```

```

For opt = 0 To 14
    For a = 0 To 79
        tnode(a) = 0
    Next

```

```

For a = 0 To 138

```

```

    If TNET(a, 0) = outpt(opt) Then
        If nvmnt(x, a) > 0 Then
            cd1 = netcd(x, a)
            chc1 = a
        Else
            cd1 = netcd(x, a)
            chc1 = a
        End If

```

```

        For i = 0 To 100
            For j = 0 To 100
                chpo(i, j) = 0
                chpocd(i, j) = 0
            Next

```

```

        Next
        chpocd(0, 0) = cd1
        chs = TNET(a, 0)
        chpo(0, 0) = chs
        a = 138

```

```
ElseIf TNET(a, 1) = outpt(opt) Then
```

```
  If nvmnt(x, a) > 0 Then  
    cd1 = netcd(x, a)  
    chc1 = a
```

```
  Else  
    cd1 = netcd(x, a)  
    chc1 = a  
  End If
```

```
  For i = 0 To 100  
    For j = 0 To 100  
      chpo(i, j) = 0  
      chpocd(i, j) = 0
```

```
    Next  
  Next  
  chpocd(0, 0) = cd1  
  chs = TNET(a, 0)  
  chpo(0, 0) = chs
```

```
  a = 138
```

```
End If
```

```
aval = 0
```

```
For i = 0 To 20
```

```
  cou = 0
```

```
  nopt = 0
```

```
  For j = 0 To 20
```

```
    If chpo(i, j) > 0 And chpocd(i,
```

```
j) > 0 Then
```

```
      For lk = 0 To 138
```

```
        sav = 0
```

```
        If chpo(i, j) =
```

```
TNET(lk, 0) Then
```

```
          For k = 0 To
```

```
            cou
```

```
              If chpo(i
```

```
              + 1, k) <> TNET(lk, 1) Then
```

```
                If
```

```
                tnode(TNET(lk, 1)) = 1 Then
```

```
                  sav = 1
```

```
                End
```

```
                If
```

```
                If
```

```
                sav = 0 Then
```

```
                  cd1 = chpocd(i, j)
```

```
                  chpo(i + 1, cou) = TNET(lk, 1)
```

```
                  tnode(TNET(lk, 1)) = 1
```

```
                  a = lk
```



```

If netcd(x, a) >= cd1 Then
netvijet(x, a) = cd1 + netvijet(x, a)
netcd(x, a) = netcd(x, a) - cd1
chpocd(i + 1, cou) = cd1

```

```

ElseIf cd1 >= netcd(x, a) Then
netvijet(x, a) = netcd(x, a) + netvijet(x, a)
chpocd(i + 1, cou) = netcd(x, a)
netcd(x, a) = 0
End If
cou = cou + 1

```

```

If

```

```

And cou = 0 Then

```

```

j + 1) = 0 And aval = 1 Then

```



```

cou

```

```

sav = 1

```

```

cd1 = chpocd(i, j)

```

```

chpo(i + 1, cou) = TNET(lk, 0)

```

```

tnode(TNET(lk, 0)) = 1

```

```

End

```

```

End If

```

```

Next

```

```

If lk >= 138

```

```

aval = 1
If chpo(i,

```

```

aval = 2
i = 101
j = 101
End If

```

```

End If

```

```

ElseIf chpo(i, j) = TNET(lk, 1) Then

```

```

For k = 0 To

```

```

If chpo(i + 1, k) <> TNET(lk, 0) Then

```

```

If tnode(TNET(lk, 0)) = 1 Then

```

```

End If

```

```

If sav = 0 Then

```

a = lk

If netcd(x, a) >= cd1 Then

netvijet(x, a) = cd1 + netvijet(x, a)

netcd(x, a) = netcd(x, a) - cd1

chpocd(i + 1, cou) = cd1

ElseIf cd1 >= netcd(x, a) Then

netvijet(x, a) = netcd(x, a) + netvijet(x, a)

chpocd(i + 1, cou) = netcd(x, a)

netcd(x, a) = 0

End If

cou = cou + 1

End If

End If

Next

Then



If lk >= 138 And cou = 0 Then

aval = 1

If chpo(i, j + 1) = 0 And aval = 1

aval = 2

i = 101

j = 101

End If

End If

End If

Next

End If

Next

Next

Next

Next

End If

For a = 0 To 138

vije = netvijet(x, a) + vije

Next

For a = 0 To 138

netvijt(x, a) = tv

Next

vijs = 0

For a = 0 To 138

If nvmnt(x, a) = 0 Then

vijs = netvijt(x, a) + vijs

```

        Else
            netvijt(x, a) = 0
        End If
    Next
    vpiji = vijs
    res = ""

    maxqs(x) = vije + vmns + vijs

    'Module1.mdb(generq, x, 0) = vpiji
    'Module1.mdb(generq, x, 1) = vije
    'Module1.mdb(generq, x, 2) = vmns
    'Module1.mdb(generq, x, 3) = maxqs(x)

    res = Convert.ToString(vije) + "\\" +
Convert.ToString(vmns) + "\\" + Convert.ToString(vijs) + "\\" +
Convert.ToString(maxqs(x))

    ' LBOXpath.Items.Add(res)

    If maxqs(x) > TXtc.Text Then

        maxqtl = 0
        ElseIf vpiji > maxqs(x) Then

            maxqtl = 0
        End If

    ' LBOXpath.Items.Add("!!!!!!!!!!!!")

Else
    maxqtl = 0

End If

'Dim vmper(5, 56)
Dim d As Integer
Dim revm As Integer
Dim mor As Integer
Dim x1 As Integer
Dim x2 As Integer

If x = 0 Then
    maxqtl = 0
End If

Dim wvmns As Integer ' vmn weighted
Dim vn As Integer
vn = TXvn.Text

If vmns <= vn * 3 And vmns > 0 Then
    If vmns < vn Then
        wvmns = 1
    ElseIf vmns > vn And vmns <= vn * 2 Then
        wvmns = 300
    ElseIf vmns > vn * 2 And vmns <= vn * 3 Then
        wvmns = 600

```

```

End If
Else
    maxqtl = 0
End If
Dim mpw, m2m1, sm, bvmns As Integer
mpw = 0
m2m1 = 0
revm = 0
If maxqtl = 1 And vmns > 0 Then
    Module1.maxqst(generq, x) = maxqs(x)
    sm = maxqs(x)
    mpw = maxqs(x) + vmns * wvmns
    For d = 4 To 0 Step -1

        bvmns = maxqod(d, 1)
        If bvmns < vn Then
            wvmns = 1
        ElseIf bvmns > vn And bvmns <= vn * 2 Then
            wvmns = 300
        ElseIf bvmns > vn * 2 And bvmns <= vn * 3

Then
            wvmns = 600
        End If
        m2m1 = maxqod(d, 2) + bvmns * wvmns

        If maxqod(d, 2) = 0 Then
            maxqod(d, 2) = maxqs(x)
            maxqod(d, 1) = vmns
            maxqod(d, 0) = x
            revm = 1
            For a = 0 To 8
                vmper(d, a) = vmpath(a)
            Next
            vmper(d, 9) = vmns
            a = 10

            For x1 = 0 To 8
                For x2 = 0 To 7
                    vmper(d, a) = pathper(x1, x2)
                    a = a + 1
                Next
            Next

            vmper(d, a) = maxqs(x)
            a = a + 1
            vmper(d, a) = vije

        ElseIf mpw > m2m1 Then 'vmn weighted

            If d > 0 Then
                If maxqs(x) <> maxqod(d - 1, 2) Then
                    mor = d
                    revm = 1
                ElseIf maxqs(x) = maxqod(d - 1, 2)

Then
                    revm = 0
                    d = -1
                End If
            End If
        End If
    Next d
End If

```

```

        End If
    ElseIf d = 0 Then
        mor = 0
        revm = 1
    End If
Else
    d = -1
End If
Next

If vmns = 600 Then
    vmns = 600
End If

If mor = 0 And revm = 1 Then
    mor = 0
End If

If revm = 1 Then
    If mor = 4 Then
        maxqod(mor, 2) = maxqs(x)
        maxqod(mor, 1) = vmns
        maxqod(mor, 0) = x
        For a = 0 To 8
            vmper(mor, a) = vmpath(a)
        Next
        vmper(mor, 9) = vmns
        a = 10

        For x1 = 0 To 8
            For x2 = 0 To 7
                vmper(mor, a) = pathper(x1, x2)
                a = a + 1
            Next
        Next

        vmper(mor, a) = maxqod(mor, 2)
        a = a + 1
        vmper(mor, a) = vije
    Else
        For b = 3 To mor Step -1
            maxqod(b + 1, 2) = maxqod(b, 2)
            maxqod(b + 1, 1) = maxqod(b, 1)
            maxqod(b + 1, 0) = maxqod(b, 0)
            For a = 0 To 8
                vmper(b + 1, a) = vmper(b, a)
            Next
            vmper(b + 1, 9) = vmper(b, 9)

            a = 10

            For x1 = 0 To 8

```


a)

```
For x2 = 0 To 7
    vmper(b + 1, a) = vmper(mor,
```

```
        a = a + 1
```

```
    Next
```

```
Next
```

```
vmper(b + 1, a) = maxqod(b, 2)
```

```
a = a + 1
```

```
vmper(b + 1, a) = vmper(b, a)
```

```
If b = mor Then
```

```
    maxqod(mor, 2) = maxqs(x)
```

```
    maxqod(mor, 1) = vmns
```

```
    maxqod(mor, 0) = x
```

```
For a = 0 To 8
```

```
    vmper(mor, a) = vmper(mor, a)
```

```
Next
```

```
vmper(mor, 9) = vmns
```

```
a = 10
```

```
For x1 = 0 To 8
```

```
For x2 = 0 To 7
```

```
    vmper(mor, a) =
```

```
        a = a + 1
```

```
    Next
```

```
Next
```

```
vmper(mor, a) = maxqs(x)
```

```
a = a + 1
```

```
vmper(mor, a) = vije
```

```
End If
```

```
Next
```

```
End If
```

```
End If
```

```
Else
```

```
    maxqtl = 0
```

```
End If
```

```
If maxqtl = 0 Then
```

```
    x = x - 1
```

```
Else
```

```
    DataSet31.ga.AddgaRow(generq, x, vpiji, vije, vmns,
```

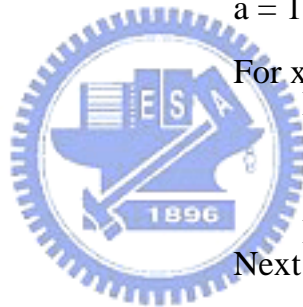
```
    DG2.Refresh())
```

```
End If
```

```
Next 'group
```

pathper(x1, x2)

maxqs(x)



```

For a = 1 To 138
    Module1.nvmnt(a) = nvmnt(maxqod(0, 0), a)
    Module1.netvijt(a) = netvijt(maxqod(0, 0), a)
    Module1.netvijet(a) = netvijet(maxqod(0, 0), a)
    ' LBOXpath.Items.Add(nvmnt(x, a))
Next

For a = 0 To 28
    LBOXpath.Items.Add(netvij(x, a))
Next
' LBOXpath.Items.Add("!!!!!!!!!!!!")

For a = 0 To 4
    res = ""
    For b = 0 To 82
        res = res + "/" + Convert.ToString(vmper(a, b))
    Next
    ' LBOXpath.Items.Add(res)

    res = ""
    For b = 0 To 2
        res = res + "/" + Convert.ToString(maxqod(a, b))
    Next
    ' LBOXpath.Items.Add(res)
Next

For b = 0 To 4
    res = ""
    res = res + "/" + Convert.ToString(maxqod(b, 2))
    ' LBOXpath.Items.Add(maxqod(b, 2))
Next
Module1.maxqmaxt(generq) = maxqod(0, 2)
If vaset = 1 Then
    Module1.maxqmaxmutation(vageneral, generq) =
maxqod(0, 2)
ElseIf vaset = 2 Then
    Module1.maxqmaxcross(vageneral, generq) = maxqod(0,
2)
End If

For a = 0 To 138

Next

Dim chvm(5, 2)
Dim vma As Integer
vma = 0
Dim vma1(5)
Dim vmod(5)
Dim gavm(5, 9)
Dim gaper(5, 72)
For a = 0 To 4
    For b = 0 To 2
        chvm(a, b) = 0
    Next
    vma1(a) = 0

```

```

    vmod(a) = 0
Next

For a = 0 To 4
    chvm(a, 0) = a
    chvm(a, 1) = maxqod(a, 1)
    vmal(a) = maxqod(a, 1)
Next

For a = 0 To 4
    For x = 0 To 4
        If vmal(a) <> 0 Then
            vma = vmal(a)
            x = 5
        End If
    Next

    For b = 0 To 4
        If vmal(b) >= vma Then
            vma = vmal(b)
        End If
    Next

    vmod(a) = vma

    For b = 0 To 4
        If vmal(b) = vma Then
            vmal(b) = 0
        End If
    Next

    ' LBOXpath.Items.Add(vmod(a))
Next

'res = ""
'For a = 0 To 4
'    res = res + "/" + Convert.ToString(vmod(a))
'Next
'LBOXpath.Items.Add(res)

For a = 0 To 4
    For x = 0 To 4
        If vmod(a) = vmper(x, 9) Then
            res = ""
            For b = 0 To 8
                gavm(a, b) = vmper(a, b)
                ' res = res + "/" + Convert.ToString(gavm(a, b))
            Next

            For b = 0 To 72
                gaper(a, b) = vmper(a, b + 10)
            Next
            ' res = res + "/" + Convert.ToString(vmod(a))
            ' LBOXpath.Items.Add(res)
        End If
    Next
Next

```

```

Dim gavms(9)
Dim gapers(72)

For a = 0 To 4
  For x = 0 To 8
    gavms(x) = gvm(a, x) + gavms(x)
  Next

  For x = 0 To 71
    gapers(x) = gper(a, x) + gapers(x)
  Next
Next

'res = ""
'For x = 0 To 8
'  res = res + "/" + Convert.ToString(gavms(x))
'  If gavms(x) = 0 Then
'    LBOXpath.Items.Add("zero")
'  End If
'Next

For x = 0 To 72
  'res = res + "/" + Convert.ToString(gapers(x))
Next

LBOXpath.Items.Add(res)

Dim gvm, gper(9) As Integer

gvm = 0
For x = 0 To 8
  gvm = gavms(x) + gvm
Next

'*****for test through
If gvm = 0 Then
  gvm = 1
End If
Dim gpl As Integer
gpl = 0

For x = 0 To 8
  For a = 0 To 7
    gper(x) = gapers(gpl) + gper(x)
    gpl = gpl + 1
  Next
  ' LBOXpath.Items.Add(gper(x))
Next
'Dim gvmp(6), gperp(6, 8) 'vm 和 pathper 的機率
For a = 0 To 8
  For b = 0 To 7
    gperp(a, b) = 0
  Next
Next

For a = 0 To 8
  gvmp(a) = Convert.ToInt32((gavms(a) / gvm) * 100)
  LBOXpath.Items.Add(gvmp(a))

```

```

Next
gpl = 0
For a = 0 To 8
  For b = 0 To 7
    If gper(a) = 0 Then
      gperp(a, b) = 0
    Else
      gperp(a, b) = Convert.ToInt32(gapers(gpl) /
gper(a) * 100)
      gpl = gpl + 1
      ' LBOXpath.Items.Add(gperp(a, b))
    End If
  Next
Next

```

```

Dim vmps As Integer
vmps = 0

```

```

For a = 0 To 8
  If gvmp(a) <> 0 Then
    If a > 0 Then
      gvmp(a) = gvmp(a) + vmps
      vmps = gvmp(a)
    Else
      vmps = gvmp(a)
    End If
  Else
    gvmp(a) = 0
  End If
  ' LBOXpath.Items.Add(gvmp(a))
Next

```

```

For a = 0 To 8
  vmps = 0
  For b = 0 To 7
    If gperp(a, b) <> 0 Then
      If b > 0 Then
        gperp(a, b) = gperp(a, b) + vmps
        vmps = gperp(a, b)
      Else
        vmps = gperp(a, b)
      End If
    Else
      gperp(a, b) = 0
    End If
    ' LBOXpath.Items.Add(gperp(a, b))
  Next
  ' LBOXpath.Items.Add("!!!!!!!!!!!!!!!!")
Next

```

```

Next 'general

```

```

LBmaxq.Text = maxqod(0, 2)
LBvpije.Text = vmper(0, 83)
LBvmn.Text = vmper(0, 9)
LBvpiji.Text = vpiji

```

```

    LBstime.Text = (Convert.ToString(Duration_By_Second(sts,
DateTime.Now)))
End Function

```

```

Private Sub BTNgagraph_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles BTNgagraph.Click
    Dim gag As New FormGAgaph()
    gag.Show()
    Module1.tgraph = 1
End Sub

```

```

Public Function Duration_By_Second(ByVal sts As DateTime, ByVal ste
As DateTime) As Single
    Return ste.Subtract(sts).TotalSeconds
End Function

```

```

Private Sub BTNset_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles BTNset.Click

```

```

    Dim j As Integer

```

```

    tc = Convert.ToInt32(TXtc.Text / 138)
    tv = Convert.ToInt32(TXtv.Text / 138)
    Module1.stc = tcapa
    Module1.stv = tvl

```

```

    tcapa = tc
    tvl = tv

```

```

    DataSet21.Clear()

```

```

    '-----
    For j = 0 To 138
        TNET(j, 3) = tc
        TNET(j, 4) = tv

```

```

        DataSet21.dbt.AdddbtRow(Convert.ToInt32(TNET(j, 0)),
Convert.ToInt32(TNET(j, 1)), Convert.ToInt32(TNET(j, 2)),
Convert.ToInt32(TNET(j, 3)), Convert.ToInt32(TNET(j, 4)),
Convert.ToDouble(TNET(j, 5)))
        DG1.Refresh()

```

```

    Next
End Sub

```

```

Private Sub BTNdisaster_Click(ByVal sender As System.Object, ByVal e
As System.EventArgs) Handles BTNdisaster.Click

```

```

    Dim dis As WindowsApplication1.Formtaidisaster = New
WindowsApplication1.Formtaidisaster()

```

```

    dis.Show()

```

End Sub

```
Private Sub BTNsmaxq_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles BTNsmaxq.Click
    Dim max As New Formtmaxq()
    max.Show()

```

End Sub

```
Private Sub Button2_Click_1(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button2.Click
    r1 = TXr1.Text
    r2 = TXr2.Text
    r3 = TXr3.Text
    d1 = TXd1.Text
    d2 = TXd2.Text
    d3 = TXd3.Text
    general = TXG.Text

```

End Sub

```
Private Sub BTNreset_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles BTNreset.Click
    TXvn.Text = 200
    LBvmn.Text = ""
    LBmaxq.Text = ""
    LBvpije.Text = ""
    LBvpiji.Text = ""

```

End Sub

```
Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button3.Click
    Dim earth As New Formearth()
    earth.Show()

```

End Sub

```
Private Sub Button4_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button4.Click

```

```
    DataSet31.ga.Clear()
    DG2.Refresh()
    Dim b, vmn, a, c As Integer
    For a = 0 To 100
        For b = 0 To 100
            Module1.maxqst(a, b) = 0
            Module1.maxqmaxt(a) = 0
        Next
    Next
    b = TXvn.Text
    vmn = b * 3
    TXvm.Text = vmn / 2
    maxqbtn = 1
    LBOXpath.Items.Clear()
    sts = ""
    sts = DateTime.Now

```

```

crossover = 50
mutation = 0
For vgeneral = 0 To 4
    vaset = 1
    maxqga(r1, r2, r3, d1, d2, d3)
    mutation = mutation + 25
Next

```

```

mutation = 1
crossover = 0
For vgeneral = 0 To 4
    vaset = 2
    maxqga(r1, r2, r3, d1, d2, d3)
    crossover = crossover + 25
Next

```

```

Dim v As New Formvariable
v.Show()

```

```

End Sub

```

```

Private Sub Button5_Click_1(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button5.Click
    Dim v As New Formvariable
    v.Show()

```

```

End Sub
End Class

```



APPENDIX B VITA

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警政署保二總隊督訓組警正二階組員(83 年3 月至92 年3 月)
警政署航空警察局督察室警正二階督察員(92 年3 月至93 年4 月)
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A. 期刊論文 (資格著作)

1. Cheng-Min FENG and Chieh-Chao WEN (2003), "Traffic Control Management for Earthquake-Raid Area", *Journal of the 5th Eastern Asia Society for Transportation Studies*, Vol. 5, pp.3261-3275.
2. Cheng-Min FENG and Chieh-Chao WEN (2005), "A Fuzzy Bi-level and Multi-Objective Model to Control Traffic Flow into the Disaster Area Post Earthquakes", *Journal of the 6th Eastern Asia Society for Transportation Studies*, pp.4253-4262.

B. 研討會論文

Cheng-Min FENG and Chieh-Chao WEN (2005), "A Bi-level Programming Model for Allocating Private and Emergency Vehicle Flows in Seismic Disaster Areas", *Journal of the 6th Eastern Asia Society for Transportation Studies*, pp.1408-1423

C. 研究報告及其他

1. 馮正民、林楨家、王在莒、溫杰炤，地震災區交通之評估與決策分析(二)，國科會計畫，民國九十年八月至民國九十一年七月。
2. 汪進財、馮正民、劉德昌、鍾易詩、溫杰炤等，我國航空保安發展策略之研究，交通部委託，民國九十二年十二月二十六日。
3. 溫杰炤等，台北松山機場為民服務滿意度調查，內政部警政署 航空警察局台北分局，民國九十三年十月。

