

**Below is the VBA code to improve speed and accuracy of data entry for the roads layer to support the 911 system for a town.**

Option Explicit

```
Dim m_pMxDoc As IMxDocument
Dim m_pMap As IMap
Dim m_pLayers As IEnumLayer
Dim m_pLayer As ILayer
Dim m_pFLayer As IFeatureLayer
Dim m_strStaffID As String
Dim m_strDir As String
Dim m_strName As String
Dim m_strType As String
Dim m_intLleft As String
Dim m_intLright As String
Dim m_intUleft As String
Dim m_intUright As String
Dim m_pToday As String
Dim m_pActiveView As IActiveView
Dim m_pLt(1 To 13) As String
```

**\*\*The form will work in this way:**

'The user will click the rectangular control button on the Editor tool bar.

'It will prompt the user for their staff ID with an Input Box.

'The ID entered along with a timestamp will be stored in separate columns in the \_ attribute table of the roads layer.

'The form will be able to remain open during a digitizing session (modeless) since \_ ShowModal = false.

'The user will be able to tab through the different boxes in the appropriate order \_ from St\_Dir-->St\_Name-->St\_Type-->Lleft-->Uleft-->LRight-->URight.

'After entering the data, the user will click the "Commit" button and the boxes \_ will be checked for values.

'If a value is missing, a message box will prompt the user to enter a value.

'After committing the data entries, the data will be entered into the attribute table \_ along with the user's ID and a timestamp.

```
Public Sub make_list()
```

```
Dim pMap As IMap
Set m_pMxDoc = ThisDocument
Set pMap = m_pMxDoc.FocusMap
Set m_pActiveView = m_pMxDoc.FocusMap
Dim pFields As IFields
Dim i As Integer
Dim j As Integer
Dim k As Integer
Dim pTabCollection As ITableCollection
Dim pTable As ITable
Dim pDataSet As IDataset
Set pTabCollection = pMap
    MsgBox "Count" & pTabCollection.TableCount
```

'Find the table with the name of the summary table

```
For i = 0 To pTabCollection.TableCount - 1
```

```

Set pDataSet = pTabCollection.Table(i)
If pDataSet.BrowseName = "streetname" Then
    Set pTable = pDataSet
    'MsgBox "table3" & pDataSet.BrowseName
Exit For
End If
Next

'Find the index of the field where the data is stored
k = pTable.Fields.FindField("NAME")
'MsgBox "field index " & k

Dim OID() As Long
Dim OIDCount As Long
OIDCount = 13
ReDim OID(OIDCount)
OID(0) = 1
OID(1) = 2
OID(2) = 3
OID(3) = 4
OID(4) = 5
OID(5) = 6
OID(6) = 7
OID(7) = 8
OID(8) = 9
OID(9) = 10
OID(10) = 11
OID(11) = 12
OID(12) = 13

'Get rows from the table
Dim pCursor As ICursor
Set pCursor = pTable.GetRows(OID, False)
Dim pRow As IRow
'MsgBox " Row Count " & pTable.RowCount(Nothing)
i = 1
Set pRow = pCursor.NextRow
Do While Not pRow Is Nothing
    m_pLt(i) = pRow.Value(k)
    'MsgBox "row value" & pRow.Value(k)
    Set pRow = pCursor.NextRow
    i = i + 1
    If i < 14 Then
        OID(i) = i
    Else
        Exit Do
    End If
Loop
'MsgBox "list value" & m_pLt(1)
'MsgBox "list value" & m_pLt(5)
'MsgBox "list value" & m_pLt(8)
'MsgBox "list value " & m_pLt(13)

End Sub

Private Sub cboDir_Change()

```

```
m_strDir = cboDir.Value
End Sub
Private Sub cboName_Change()
m_strName = cboName.Value
End Sub
```

```
Private Sub cboType_Change()
m_strType = cboType.Value
End Sub
```

```
Private Sub cboLeft_Change()
m_intLeft = cboLeft.Value
End Sub
```

```
Private Sub cboUleft_Change()
m_intUleft = cboUleft.Value
End Sub
```

```
Private Sub cboRight_Change()
m_intRight = cboRight.Value
End Sub
```

```
Private Sub cboUright_Change()
m_intUright = cboUright.Value
End Sub
```

```
Private Sub UserForm_Initialize()
```

'Initial code induces an InputBox to prompt the user for his/her staff ID. \_  
The staff ID will be stored at the "module" level to be available for entering \_  
in the attribute table after each road is digitized.

```
m_strStaffID = InputBox("Please enter your staff ID:", "What's your staff ID?", "Your staff ID here")
MsgBox "Hello " & m_strStaffID & ". Please click 'Commit' when finished entering data in all fields.",
vbOKOnly, "Hello"
```

```
cboDir.Clear
cboDir.AddItem "N"
'cboDir.AddItem "S" 'only N and W directions are used in this data set
'cboDir.AddItem "E"
cboDir.AddItem "W"
```

Call make\_list

```
cboName.Clear
cboName.AddItem m_pLt(1)
cboName.AddItem m_pLt(2)
cboName.AddItem m_pLt(3)
cboName.AddItem m_pLt(4)
cboName.AddItem m_pLt(5)
cboName.AddItem m_pLt(6)
cboName.AddItem m_pLt(7)
cboName.AddItem m_pLt(8)
cboName.AddItem m_pLt(9)
cboName.AddItem m_pLt(10)
cboName.AddItem m_pLt(11)
cboName.AddItem m_pLt(12)
```

```
cboName.AddItem m_pLt(13)
```

```
cboType.Clear  
cboType.AddItem "St"  
cboType.AddItem "Ave"  
cboType.AddItem "Al"
```

```
cboLeft.Clear  
cboLeft.AddItem "1"  
cboLeft.AddItem "3"  
cboLeft.AddItem "5"
```

```
cboUleft.Clear  
cboUleft.AddItem "99"  
cboUleft.AddItem "199"  
cboUleft.AddItem "299"  
cboUleft.AddItem "399"  
cboUleft.AddItem "499"
```

```
cboRight.Clear  
cboRight.AddItem "2"  
cboRight.AddItem "4"  
cboRight.AddItem "6"
```

```
cboUright.Clear  
cboUright.AddItem "98"  
cboUright.AddItem "198"  
cboUright.AddItem "298"  
cboUright.AddItem "398"  
cboUright.AddItem "498"
```

```
frm911_Data.Show
```

```
End Sub
```

```
Private Sub cmdCommit_Click()
```

```
'If one command box is left blank, user should get a warning  
'This is the first phase of the commit process
```

```
Dim i As Integer  
i = 0  
Do While i < 7  
    If cboDir.Value = "" Then  
        MsgBox "Fill in Street Direction"  
        i = i + 1  
        Exit Do  
    ElseIf cboName.Value = "" Then  
        MsgBox "Fill in Street Name"  
        i = i + 1  
        Exit Do  
    ElseIf cboType.Value = "" Then  
        MsgBox "Fill in Street Type"  
        i = i + 1  
        Exit Do
```

```

Elseif cboLeft.Value = "" Then
  MsgBox "Fill in Low Left"
  i = i + 1
  Exit Do
Elseif cboUleft.Value = "" Then
  MsgBox "Fill in Upper Left"
  i = i + 1
  Exit Do
Elseif cboRight.Value = "" Then
  MsgBox "Fill in Low Right"
  i = i + 1
  Exit Do
Elseif cboUright.Value = "" Then
  MsgBox "Fill in Upper Right"
  i = i + 1
  Exit Do
Else: i = 8
End If
Loop

```

'Commit button code--this is the second phase of the commit process

'Now the code attaches the attributes to the line which was drawn

```

Set m_pMxDoc = Application.Document
Set m_pActiveView = m_pMxDoc.FocusMap
Dim pFeatureClass As IFeatureClass
Set m_pMap = m_pMxDoc.FocusMap
Set m_pLayers = m_pMap.Layers
Set m_pFLayer = m_pLayers.Next

```

```

Do Until m_pFLayer Is Nothing
  If m_pFLayer.Name = "Roads" Then
    Exit Do
  End If
  Set m_pFLayer = m_pLayers.Next
Loop
Set pFeatureClass = m_pFLayer.FeatureClass

```

```

Dim pFields As IFields
Dim pField As IField
Dim pFeat As IFeature

```

```

Dim pEnumFeature As IEnumFeature
Dim j As Long

```

'Set the features equal to the selected line that has been drawn

'then go through the features to set values

```

Set pEnumFeature = m_pMxDoc.FocusMap.FeatureSelection
pEnumFeature.Reset
Set pFeat = pEnumFeature.Next
Do While Not pFeat Is Nothing
  j = pFeatureClass.Fields.FindField("ST_DIR")
  pFeat.Value(j) = m_strDir
  pFeat.Store
  'MsgBox "Field" & j
  j = pFeatureClass.Fields.FindField("ST_NAME")
  pFeat.Value(j) = m_strName

```

```

    pFeat.Store
    MsgBox "Field" & j
j = pFeatureClass.Fields.FindField("ST_TYPE")
    pFeat.Value(j) = m_strType
    pFeat.Store
j = pFeatureClass.Fields.FindField("LLEFT")
    pFeat.Value(j) = m_intLeft
    pFeat.Store
j = pFeatureClass.Fields.FindField("LRIGHT")
    pFeat.Value(j) = m_intLright
    pFeat.Store
j = pFeatureClass.Fields.FindField("ULEFT")
    pFeat.Value(j) = m_intUleft
    pFeat.Store
j = pFeatureClass.Fields.FindField("URIGHT")
    pFeat.Value(j) = m_intUright
    pFeat.Store
j = pFeatureClass.Fields.FindField("STAFFID")
    pFeat.Value(j) = m_strStaffID
    pFeat.Store
j = pFeatureClass.Fields.FindField("TIME_STAMP")
    m_pToday = CDate(Now())
    pFeat.Value(j) = m_pToday
    pFeat.Store
'Get next feature
    Set pFeat = pEnumFeature.Next
Loop

'm_pMxDoc.FocusMap.FeatureSelection.Clear
'attribute table within Roads layer of Nittanytown geodatabase.

```

End Sub

```
Private Sub cmdReset_Click()
```

```

'Resets all fields to blanks
cboDir.Value = ""
cboName.Value = ""
cboType.Value = ""
cboLeft.Value = ""
cboUleft.Value = ""
cboRight.Value = ""
cboUright.Value = ""

```

End Sub

```
Private Sub cmdCloseFrm_Click()
```

```

'Closes the form
frm911_Data.Hide

```

End Sub