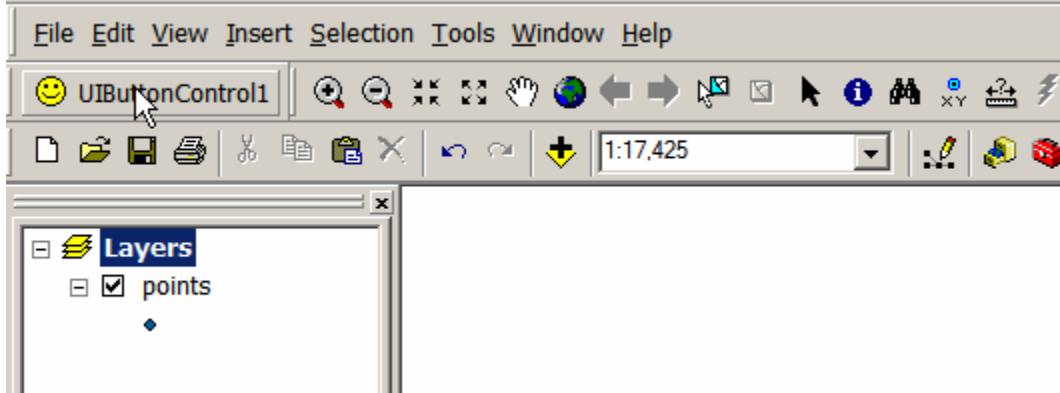


## ArcGIS: Introduction to ArcObjects Due by Friday 6pm

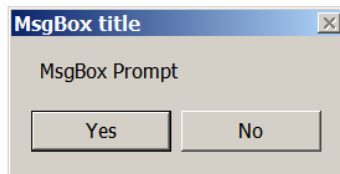
### Custom Toolbar and Button

Start Arcmap and create a new custom toolbar.  
Add a button to your toolbar and assign an icon to the button.

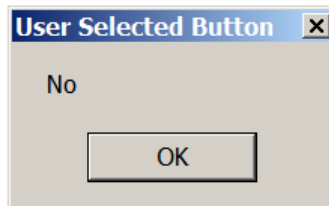
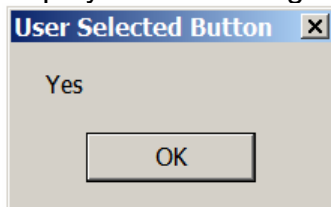


Write a VBA subroutine that will display a message box as follows:

```
Private Sub UIButtonControl1_Click()  
    Answer = MsgBox("MsgBox Prompt", vbYesNo, "MsgBox title")  
End Sub
```

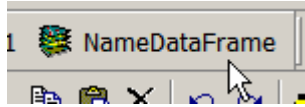


Modify your subroutine so that if the user selects Yes or No, a second message box displays the following:

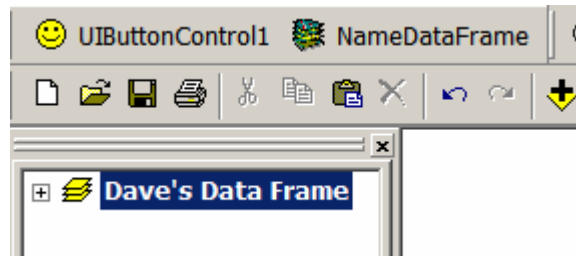
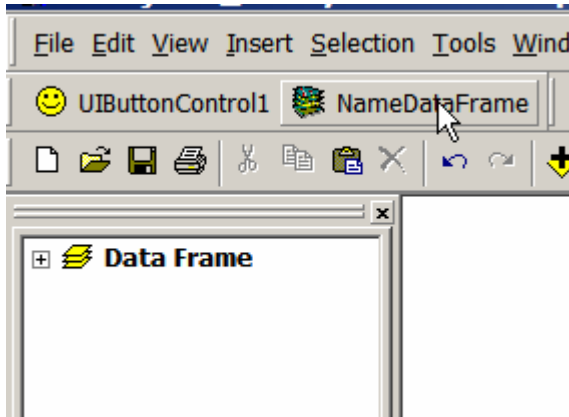


### ArcObjects: Naming Data Frames and Theme Layers

Add a second button to your toolbar as follows:



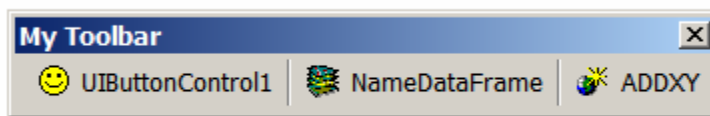
Write a VBA script that will use arcobjects to rename your data frame, when you click on the button.



For example:

```
Private Sub NameDataFrame_Click()
    Dim pMxdoc As IMxDocument
    Set pMxdoc = ThisDocument 'pMxdoc is your arcmap document
    Dim pMap As IMap
    Set pMap = pMxdoc.FocusMap 'pMap is your data frame
    pMap.Name = "Dave's Data Frame"
    pMxdoc.UpdateContents 'update table of contents
End Sub
```

Add a third button to your toolbar as follows:



Add a point theme to your data frame and rename the layer using your ADDXY button as follows:

```

Private Sub ADDXY_Click()

    Dim pMxdoc As IMxDocument
    Set pMxdoc = ThisDocument 'pMxdoc is your arcmap document

    Dim pMap As IMap
    Set pMap = pMxdoc.FocusMap 'pMap is your active data frame

    Dim pLayer As ILayer
    Set pLayer = pMap.Layer(0) 'pLayer is the first theme in your data frame
    pLayer.Name = "My Points"
    pMxdoc.UpdateContents 'update table on contents (including layer name)

Exit Sub

```

### ***ArcObjects: Using the Geoprocessor***

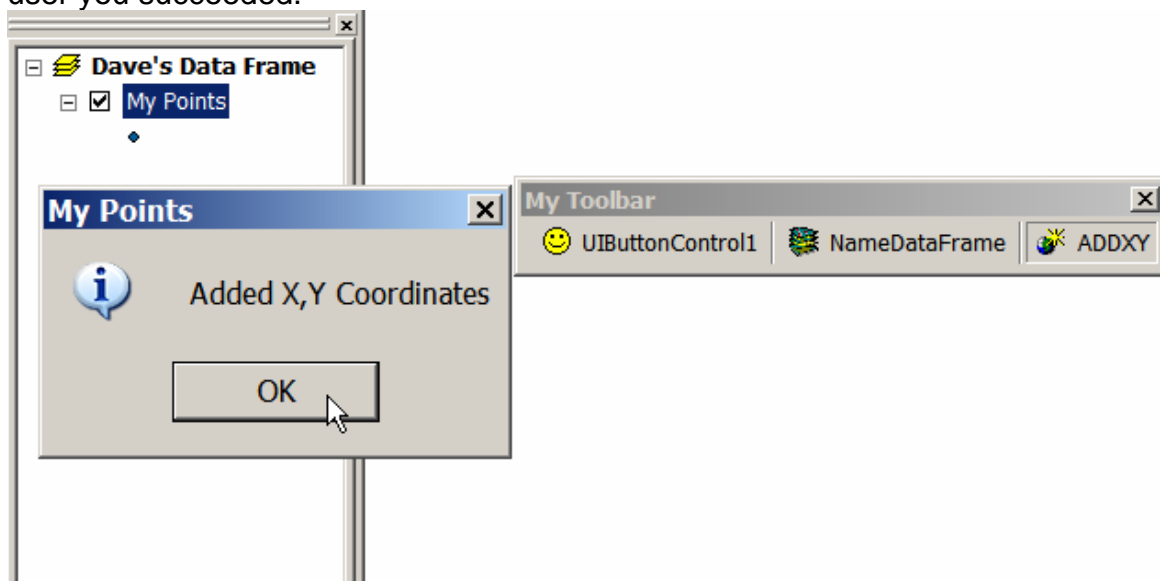
You can access the geoprocessor in ArcObjects using the following code:

```

Dim gp As Object
'Create geoprocessor:
Set gp = CreateObject("esriGeoprocessing.GPDispatch.1")
On Error GoTo EH
    gp.Workspace = "C:\temp"
    MsgBox gp.Workspace, vbOKOnly, "workspace set for geoprocessor"
Exit Sub
EH:
    MsgBox pGP.GetMessages(), vbOKOnly, "Geoprocessing Messages"
End Sub

```

Add this code to your ADDXY subroutine, and then use the gp.**AddXY()** method to add the X,Y coordinates of the first layer in your data frame, then issue a messagebox telling the user you succeeded.



<b>Attributes of My Points</b>					
	<b>FID</b>	<b>Shape *</b>	<b>id</b>	<b>POINT_X</b>	<b>POINT_Y</b>
▶	0	Point	0	434631.999678	6488036.98492
	1	Point	0	434563.028222	6487946.03868
	2	Point	0	434680.024629	6487962.01308
	3	Point	0	434621.025503	6487944.95751
	4	Point	0	434620.977572	6487962.99956
	5	Point	0	434661.984835	6488092.05542

Email me ([D.Verbyla@uaf.edu](mailto:D.Verbyla@uaf.edu)) your VBA subroutines by Friday.