Adding a FeatureClass to ArcMap
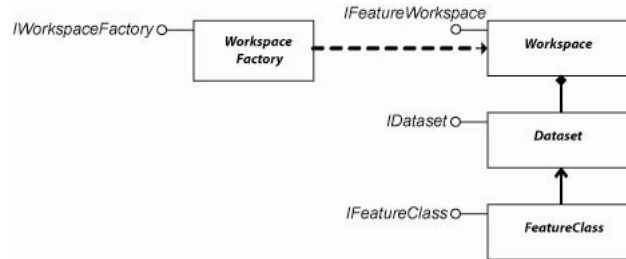
- Adds a shapefile to an active map (can be modified to add geodatabase or coverage, as well)

- Same function as hitting the "Add Data" button

- Need to know the format of the data

- Helpful if your data is scattered or you access it remotely using a password, etc.

Workspace Factory

- A WorkspaceFactory is a dispenser of workspaces and allows a client to connect to a workspace specified by a set of connection properties.

- A workspace represents a database or a datasource that contains one or more datasets. Examples of datasets include tables, feature classes and relationship classes.

Workspace Factory

- To get a data set, no matter where it's stored, must first get its workspace

- You get a workspace from a coclass called a workspace factory

- Process is to create a workspace factory, use it to get a workspace, and then get the dataset you want from the workspace

Example Macro
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```
Private Sub AddFeatureClass()
        Dim pMxDoc As IMxDocument
        Dim pMap As IMap
        Dim pWorkspaceFactory As IWorkspaceFactory
        Dim pFeatureWorkspace As IFeatureWorkspace
        Dim pFeatureLayer As IFeatureLayer
        Dim pFeatureClass As IFeatureClass
        'Specify the workspace and the feature class
        Set pWorkspaceFactory = NewShapefileWorkspaceFactory
        Set pFeatureWorkspace = pWorkspaceFactory.OpenFromFile("G:\Alaska_data\", 0)
        Set pFeatureClass = pFeatureWorkspace.OpenFeatureClass("AK_quakesprj")
        'Prepare a feature layer
        Set pFeatureLayer = NewFeatureLayer
        Set pFeatureLayer.FeatureClass = pFeatureClass
        pFeatureLayer.Name = pFeatureLayer.FeatureClass.AliasName
        'Add the feature layer to the active map
        Set pMxDoc = ThisDocument
        Set pMap = pMxDoc.FocusMap
        pMap.AddLayer pFeatureLayer
        'Refresh the active view
        pMxDoc.ActiveView.Refresh
End Sub
```

Sources

- Burke. *Getting to Know ArcObjects: Programming ArcGIS with VBA.*

- Chang, Kang-Tsung. *Programming ArcObjects with VBA: A Task-Oriented Approach.*

- ***ESRI Developer Network***

  http://edndoc.esri.com//arcobjects/9.2/CPP_VB6_VBA_VCPP_Doc/COM_Samples_Docs/Developer_Scenarios/ArcGIS_Desktop/Illustrated_Code_Samples/275bc1b7-e10b-4fbc-8563-a46953811ccc.htm