Vector Data

Dim pFeature As IFeature
pFeature.Shape
'Property Shape As IGeometry
```vbscript
' Set Output Shapefile Workspace & Name
Dim pFCursorBuffer2 As IFeatureCursorBuffer2
' Define a feature cursor buffer object.
Dim pSRef As ISpatialReference
' Set the spatial reference.
Set pSRef = pMap.SpatialReference
Set pFCursorBuf = New FeatureCursorBuffer
With pFCursorBuf
  Set .FeatureCursor = pFCursor
  .Dissolve = True
  .ValueDistance = 300
  Set .BufferSpatialReference = pSRef
  Set .DataFrameSpatialReference = pSRef
  Set .SourceSpatialReference = pSRef
  Set .TargetSpatialReference = pSRef
End With
' Use the buffer method.
pFCursorBuf.Buffer pBufFCName
```
Dim pSRef As ISpatialReference
Set pSRef = pMap.SpatialReference

Dim pBufWSName As IWorkspaceName
Dim pBufFCName As IFeatureClassName
Dim pBufDatasetName As IDatasetName

' Define the output's workspace and name.
Set pBufFCName = New IFeatureClassName
Set pBufDatasetName = pBufFCName
pBufWSName.WorkspaceFactoryProgID = "esriCore.ShapeFileWorkspaceFactory.1"
pBufWSName.PathName = "c:\data\chap10"
Set pBufDatasetName.WorkspaceName = pBufWSName
pBufDatasetName.Name = "Buffer_result"

Dim pFCursorBuffer2 As IFeatureCursorBuffer2
' Define a feature cursor buffer object.
Set pFCursorBuffers = New IFeatureCursorBuffers
With pFCursorBuffers
  .FeatureCursor = pFCursor
  .Dissolve = True
  .ValueDistance = 300
Set .BufferSpatialReference = pSRef
Set .DataFrameSpatialReference = pSRef
Set .SourceSpatialReference = pSRef
Set .TargetSpatialReference = pSRef
End With

' Use the buffer method.
pFCursorBuffer.Buffer pBufFCName

---

**WorkspaceFactory Interface**

(README Object Model 1.pdf)
Vector Overlay - IBasicGeoprocessor

Dim pBGP As IBasicGeoprocessor
Dim tol As Double
Dim pOutputFC As IFeatureClass
Set pBGP = New BasicGeoprocessor
tol = 0#
Set pOutputFC = pBGP.Intersect(pInputFC, False, pOverlayFC, False, tol, pFeatClassName)

'Define the datasets for intersect
Dim pMxDoc As IMxDocument
Dim pMap As IMap
Dim pInputLayer As IFeatureLayer
Dim pOverlayLayer As IFeatureLayer
Dim pInputFC As IFeatureClass
Dim pOverlayFC As IFeatureClass
Set pMxDoc = ThisDocument
Set pMap = pMxDoc.FocusMap

'Define the input feature class (first in the table of contents)
Set pInputLayer = pMap.Layer(0)
Set pInputFC = pInputLayer.FeatureClass

'Define the overlay table (second in the table of contents)
Set pOverlayLayer = pMap.Layer(1)
Set pOverlayFC = pOverlayLayer.FeatureClass
'Define the feature class name and output location
Dim pNewWSName As IWorkspaceName
Dim pFeatClassName As IFeatureClassName
Dim pDatasetName As IDatasetName
Set pFeatClassName = New FeatureClassName
Set pDatasetName = pFeatClassName
Set pNewWSName = New WorkspaceName
pNewWSName.WorkspaceFactoryProgID = "esriCore.ShapeFileWorkspaceFactory"
pNewWSName.PathName = "C:\temp"
Set pDatasetName.WorkspaceName = pNewWSName
pDatasetName.Name = "StreamBuffer_Soils_Intersect"

'Perform Intersect
Dim pBGP As IBasicGeoprocessor
Dim tol As Double
Dim pOutputFC As IFeatureClass
Set pBGP = New BasicGeoprocessor 'Define a basic geoprocessor object
tol = 0 'Use default tolerance
Set pOutputFC = pBGP.Intersect(pInputFC, False, _
pOverlayFC, False, tol, pFeatClassName)

Joining Data by Location

'Define the source and join tables
Dim pMxDoc As IMxDocument
Set pMxDoc = ThisDocument

Dim pMap As IMap
Set pMap = pMxDoc.FocusMap

'Define the source feature class
Dim pSourceLayer As IFeatureLayer
Set pSourceLayer = pMap.Layer(0)
Dim pSourceFC As IFeatureClass
Set pSourceFC = pSourceLayer.FeatureClass

'Define the join feature class
Dim pJoinLayer As IFeatureLayer
Set pJoinLayer = pMap.Layer(1)
Dim pJoinFC As IFeatureClass
Set pJoinFC = pJoinLayer.FeatureClass
Define the output dataset
Dim pOutWorkspaceName As IWorkspaceName
Dim pFCName As IFeatureClassName
Dim pDatasetName As IDatasetName
Set pFCName = New FeatureClassName
Set pDatasetName = pFCName
Set pOutWorkspaceName = New WorkspaceName
pOutWorkspaceName.WorkspaceFactoryProgID = "esriCore.ShapefileWorkspaceFactory.1"
pOutWorkspaceName.PathName = "C:\Documents and Settings\Owner.YOUR-906971236B\Desktop\GEOG_590"
pDatasetName.Name = "Spatial_Join"
Set pDatasetName.WorkspaceName = pOutWorkspaceName

Perform spatial join
Dim pSpatialJoin As ISpatialJoin
Dim pOutputFeatClass As IFeatureClass
Dim maxMapDist As Double

Create and define a spatial join object
Set pSpatialJoin = New SpatialJoin
With pSpatialJoin
    .ShowProcess(True) = 0
    .LeftOuterJoin = False
    Set .SourceTable = pSourceFC
    Set .JoinTable = pJoinFC
End With

Use infinity as the maximum max distance
maxMapDist = -1

Run the join nearest method
Set pOutputFC = pSpatialJoin.JoinNearest(pFCName, maxMapDist)
'Create the output layer and add it to the active map
Dim pOutputFeatLayer As IFeatureLayer
Set pOutputFeatLayer = New FeatureLayer
Set pOutputFeatLayer.FeatureClass = pOutputFC
pOutputFeatLayer.Name = pOutputFC.AliasName
pMap.AddLayer pOutputFeatLayer