Geodatabase Object Model

Esri® ArcGIS® 10.3.1

Geodatabase Object Model
Geometric Network

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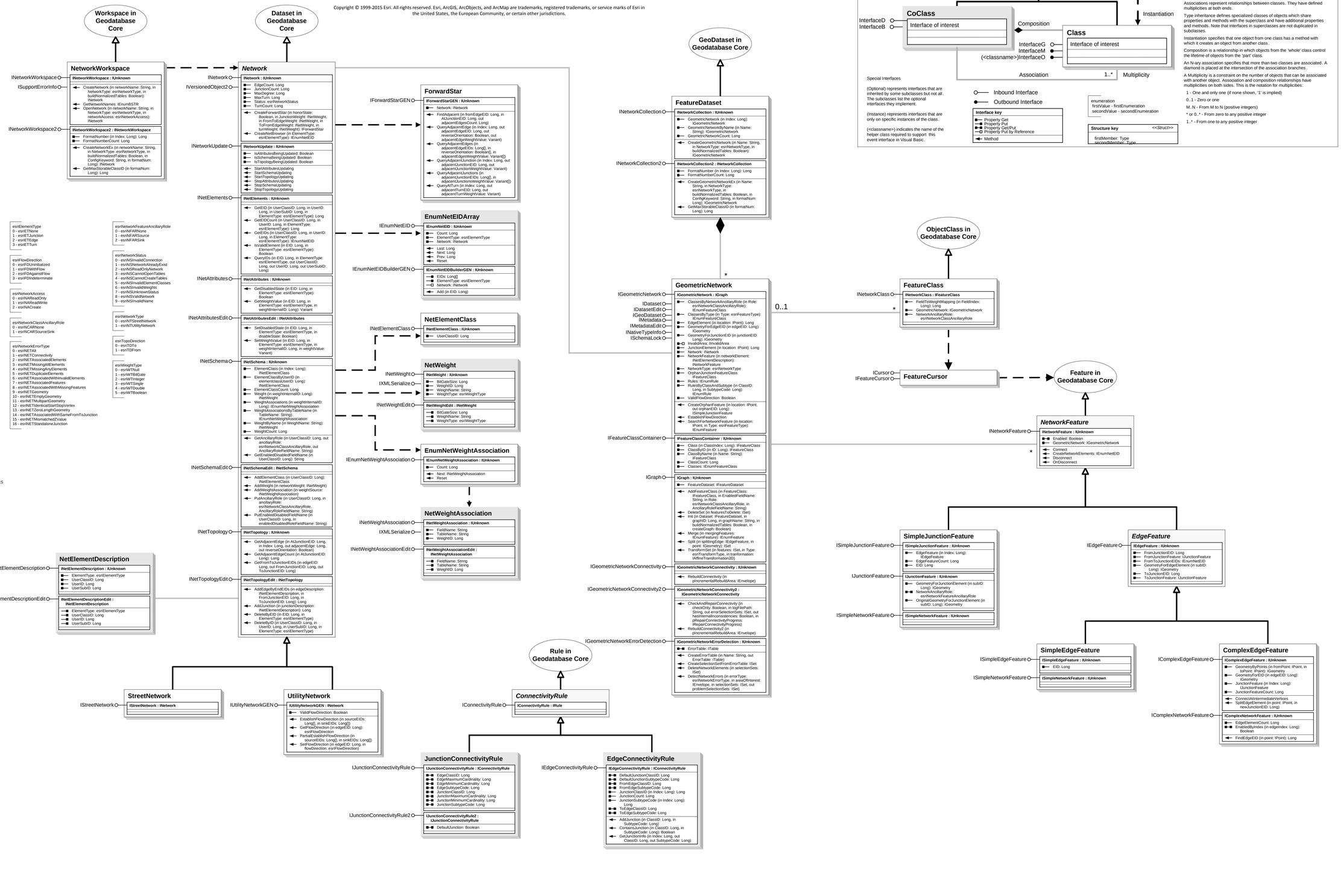

Enumerations

esriNetworkErrors
-2147205119 - NETWORK_E_INVALID_FEATURE_WORKSPACE
-2147205118 - NETWORK_E_INVALID_NETWORK_NAME
-2147205117 - NETWORK_E_UNKNOWN_NETWORK_TYPE
-2147205116 - NETWORK_E_CANNOT_OPEN_TABLE
-2147205115 - NETWORK_E_CANNOT_CREATE_TABLE
-2147205114 - NETWORK_E_INVALID_ELEMENT_CLASSES
-2147205113 - NETWORK_E_INVALID_WEIGHT_DEFINITIONS
-2147205112 - NETWORK_E_INVALID_WEIGHT_ASSOCIATION
-2147205111 - NETWORK_E_INVALID_NETWORK_ACCESS
-2147205110 - NETWORK_E_INVALID_FORMAT_NUMBER
-2147205109 - NETWORK_E_OLD_WORKSPACE_VERSION
-2147205108 - NETWORK_E_CANNOT_CLOSE_TABLE
-2147205107 - NETWORK_E_CANNOT_DELETE_TABLE
-2147205106 - NETWORK_E_UNKNOWN_ERROR
-2147205105 - NETWORK_E_REACHED_MEMORY_QUOTA
-2147205104 - NETWORK_E_INVALID_ENGINE_CONNECTION
-2147205103 - NETWORK_E_INVALID_ENGINE
-2147205102 - NETWORK_E_INVALID_ENGINE_FSTAR
-2147205101 - NETWORK_E_UNKNOWN_ENGINE_ERROR
-2147205100 - NETWORK_E_INVALID_NETWORK
-2147205099 - NETWORK_E_NETWORK_ALREADY_EXISTS
-2147205098 - NETWORK_E_INVALID_USER_CLASS_ID
-2147205097 - NETWORK_E_INVALID_WEIGHT_NAME
-2147205096 - NETWORK_E_READ_ONLY_NETWORK
-2147205095 - NETWORK_E_EDIT_SESSION_IN_PROGRESS
-2147205094 - NETWORK_E_UPDATE_SESSION_IN_PROGRESS
-2147205093 - NETWORK_E_NO_EDIT_SESSION_IN_PROGRESS
-2147205092 - NETWORK_E_NO_UPDATE_SESSION_IN_PROGRESS
-2147205091 - NETWORK_E_PROPERTY_IS_ALREADY_SET
-2147205090 - NETWORK_E_INVALID_ELEMENT_TYPE
-2147205089 - NETWORK_E_INVALID_WEIGHT_TYPE
-2147205088 - NETWORK_E_INVALID_ELEMENT_ID
-2147205087 - NETWORK_E_INVALID_USER_ID
-2147205086 - NETWORK_E_INVALID_USER_SUB_ID
-2147205085 - NETWORK_E_OVERFLOW_USER_CLASS_ID
-2147205084 - NETWORK_E_OVERFLOW_USER_ID
-2147205083 - NETWORK_E_OVERFLOW_USER_SUB_ID
-2147205082 - NETWORK_E_OVERFLOW_ELEMENT_ID
-2147205081 - NETWORK_E_INVALID_WEIGHT_ID
-2147205080 - NETWORK_E_COPY_OVERFLOW_USER_CLASS_ID
-2147205079 - NETWORK_E_INVALID_FIELD_NAME
-2147205067 - NETWORK_E_OLD_NETWORK_VERSION
-2147205066 - NETWORK_E_DUPLICATE_TURN
-2147205065 - NETWORK_E_BAD_TURN_INTERIOR_EXTERIOR_CONFLICT
-2147205064 - NETWORK_E_BAD_TURN_DUPLICATED_FIRST_LAST_EDGES
-2147205063 - NETWORK_E_BAD_TURN_SELF_LOOP
-2147205062 - NETWORK_E_BAD_TURN_UNCONNECTED_ANCHOR
-2147205061 - NETWORK_E_BAD_TURN_UNCONNECTED_EDGES
-2147205060 - NETWORK_E_ADD_WEIGHT_HAS_ELEMENTS
-2147205059 - NETWORK_E_DELETE_WEIGHT_HAS_ASSOCIATIONS
-2147205058 - NETWORK_E_DUPLICATE_PROPERTY
-2147205057 - NETWORK_E_UNDEFINED_PROPERTY
-2147205056 - NETWORK_E_MISSING_PROPERTY
-2147205055 - NETWORK_E_CANNOT_OPEN_LOGICAL_NETWORK

esriElementType
0 - esriETNone
1 - esriETJunction
2 - esriETEdge
3 - esriETTurn

esriFlowDirection
0 - esriFDUninitialized
1 - esriFDWithFlow
2 - esriFDAgainstFlow
3 - esriFDIndeterminate

esriNetworkAccess
0 - esriNAReadOnly
1 - esriNAReadWrite
2 - esriNACreate

esriNetworkClassAncillaryRole
0 - esriNCARNone
1 - esriNCARSourceSink

esriNetworkElementType
0 - esriNETAll
1 - esriNETConnectivity
2 - esriNETAssociatedElements
3 - esriNETMissingAllElements
4 - esriNETMissingAnyElements
5 - esriNETDuplicateElements
6 - esriNETAssociatedWithInvalidElements
7 - esriNETAssociatedFeatures
8 - esriNETAssociatedWithMissingFeatures
9 - esriNETGeometry
10 - esriNETEmptyGeometry
11 - esriNETMultipartGeometry
12 - esriNETIdenticalStartStopVertex
13 - esriNETZeroLengthGeometry
14 - esriNETAssociatedWithSameFromToJunction
15 - esriNETMismatchedZValue
16 - esriNETStandaloneJunction

esriNetworkFeatureAncillaryRole
0 - esriNFARNone
1 - esriNFARSource
2 - esriNFARSink

esriNetworkStatus
0 - esriNSInvalidConnection
1 - esriNSNetworkAlreadyExist
2 - esriNSReadOnlyNetwork
3 - esriNSCannotOpenTables
4 - esriNSCannotCreateTables
5 - esriNSInvalidElementClasses
6 - esriNSInvalidWeights
7 - esriNSUnknownStatus
8 - esriNSValidNetwork
9 - esriNSInvalidName

esriNetworkType
0 - esriNTStreetNetwork
1 - esriNTUtilityNetwork

esriTopoDirection
0 - esriTDTo
1 - esriTDFrom

esriWeightType
0 - esriWTNull
1 - esriWTBitGate
2 - esriWTInteger
3 - esriWTSingle
4 - esriWTDouble
5 - esriWTBoolean

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Topology

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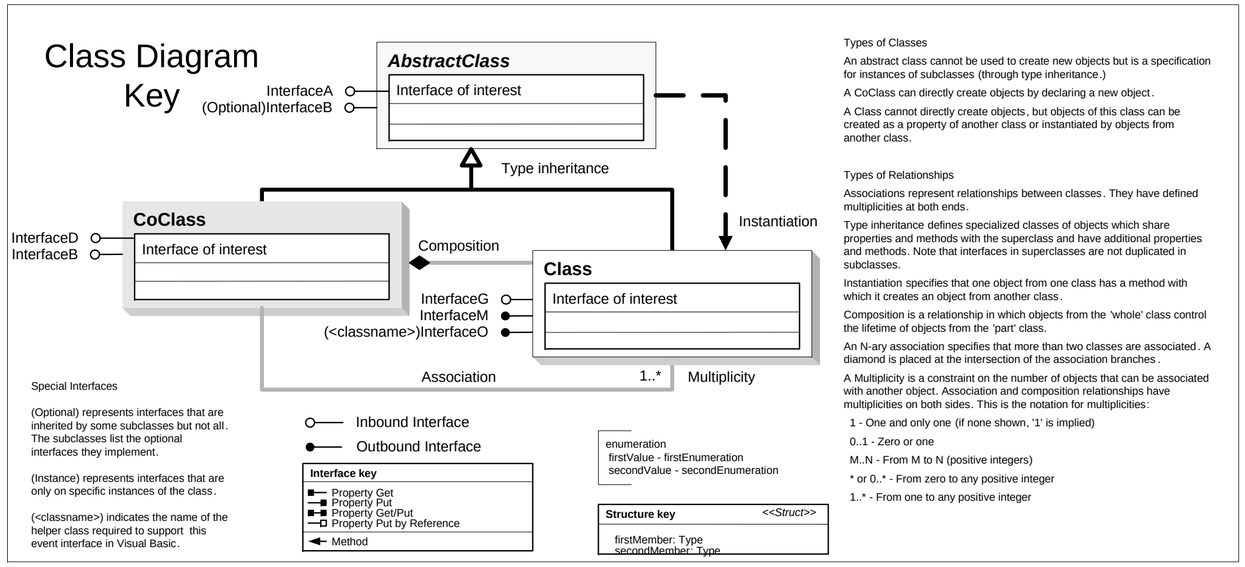

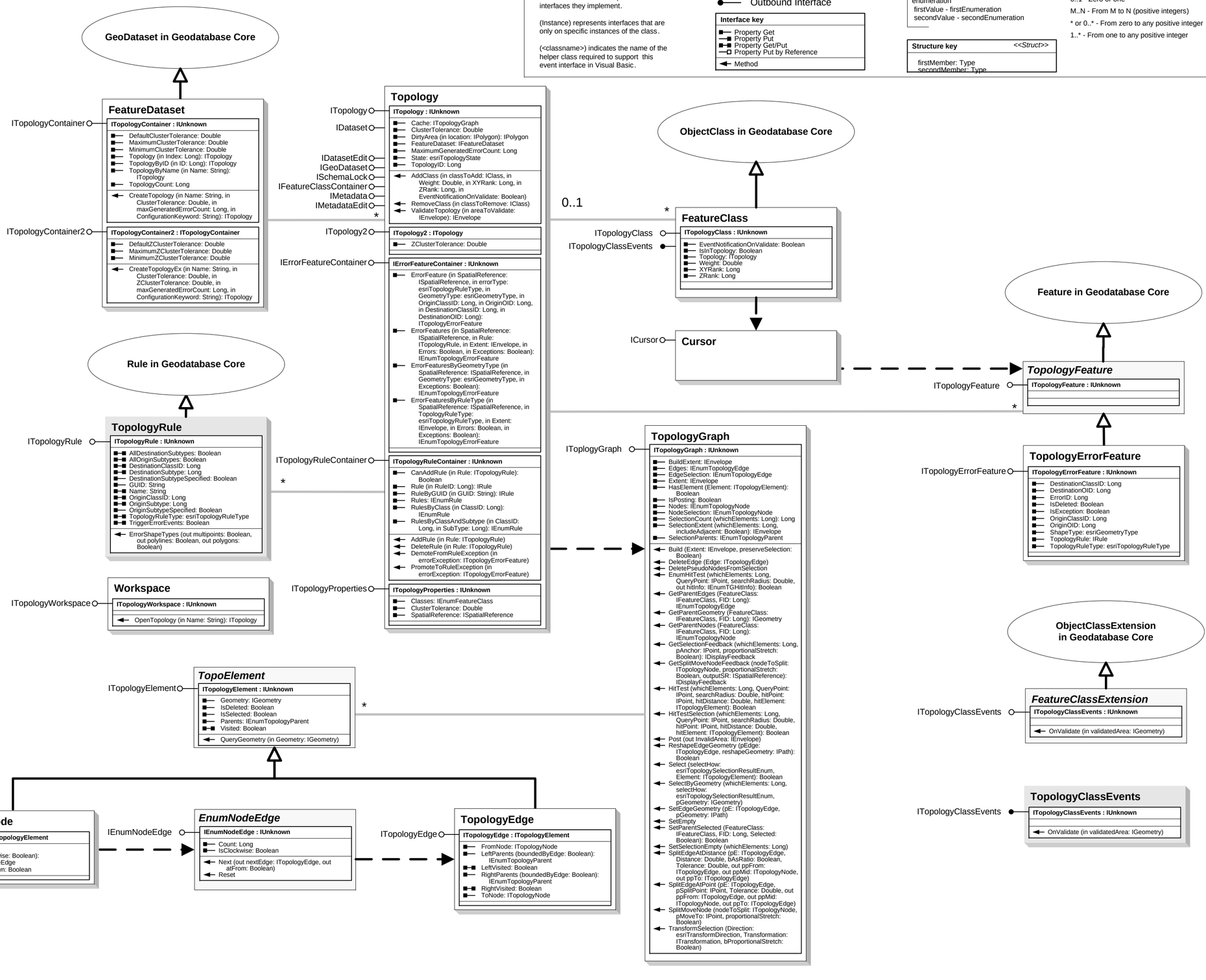

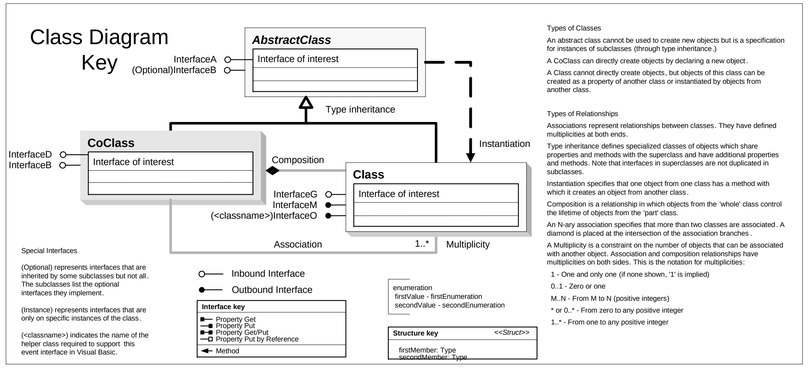

Geodatabase Object Model
Data Elements

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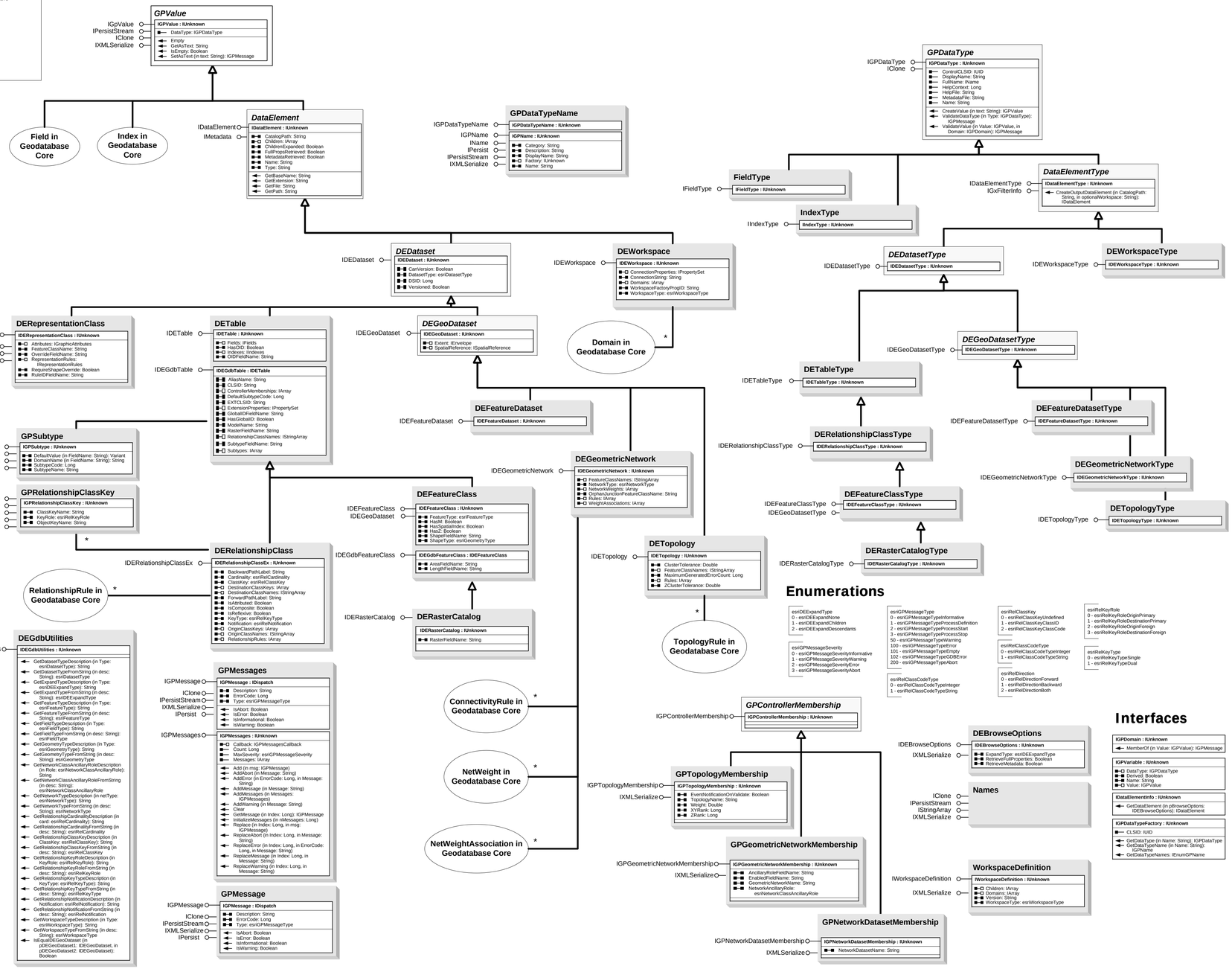

Geodatabase Object Model

Tin

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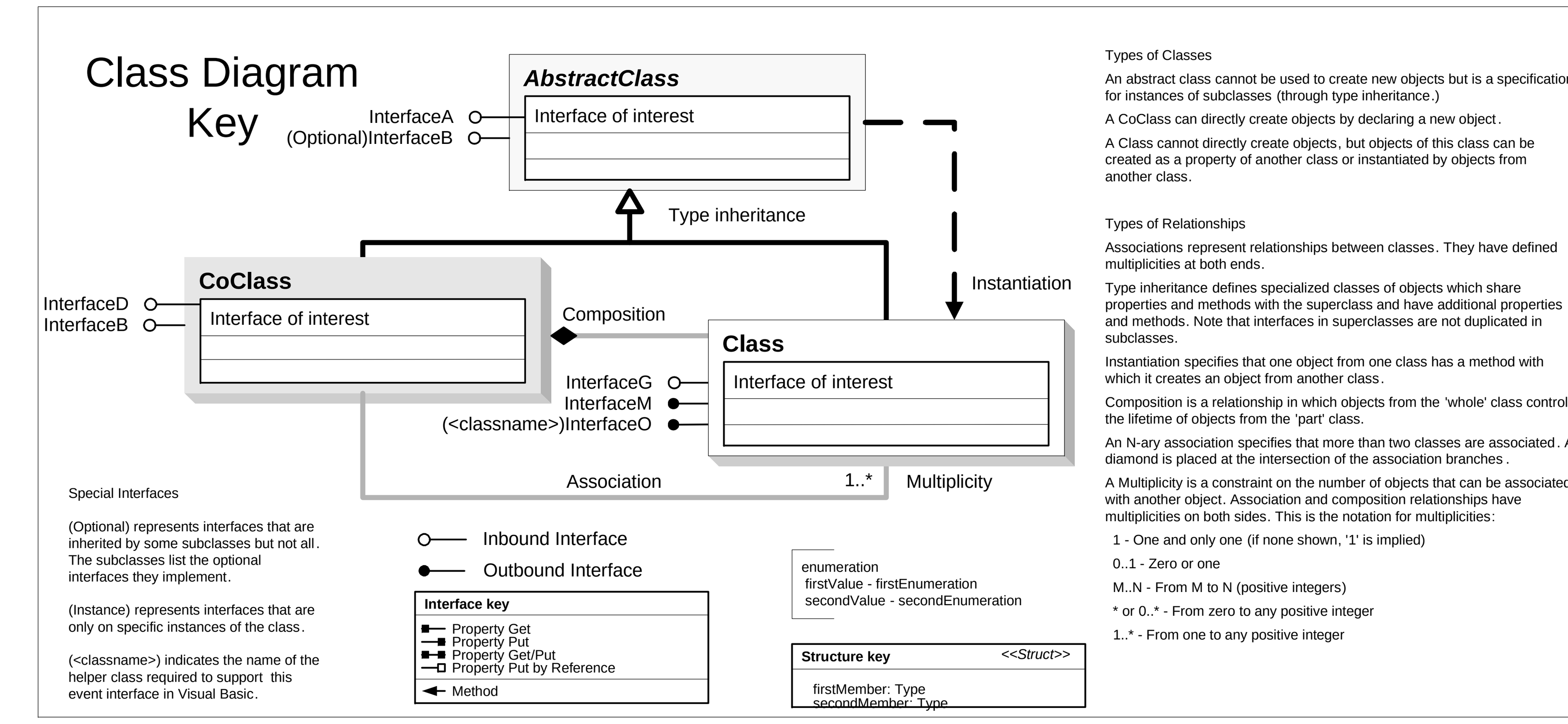


ITin : IUnknown
- DataEdgeCount: Long
- DataNodeCount: Long
- DataTriangleCount: Long
- Extent: IEnvelope
- Fields: IFields
- HasEdgeTagValues: Boolean
- HasNodeTagValues: Boolean
- HasTriangleTagValues: Boolean
- IsDelaunay: Boolean
- IsEmpty: Boolean
- ZFactor: Double
- SaveAs (in newName: String, in pOverWrite: Variant)

ITinAdvanced : ITin
- EdgeCount: Long
- Flag: Long
- FullExtent: IEnvelope
- NodeCount: Long
- ProcessCancelled: Boolean
- Surface: ISurface
- TrackCancel: ITrackCancel
- TriangleCount: Long
- UniqueTagValueCount (in Type: esriTinElementType): Long
- ConvertToPolygons (pFeatureClass: IFeatureClass, in pFilter: ITinDynamicFilter, in bStopAtEnforcedEdge: Boolean, in pFieldName: Variant)
- ExtractPolygon (in pSeed: ITinElement, in pFilter: ITinFilter, in bStopAtEnforcedEdge: Boolean): ITinPolygon
- ExtractPolyline (in pSeed: ITinEdge, in pFilter: ITinFilter): ITinPolyline
- FindNaturalNeighbors (in pPoint: IPoint): ITinNodeArray
- FindTriangle (in pPoint: IPoint): ITinTriangle
- FindTriangleNeighborhood (in pPoint: IPoint): ITinTriangleArray
- GenerateUniqueTagValue (in Type: esriTinElementType): Long
- GetDataArea: IPolygon
- GetEdge (in Index: Long): ITinEdge
- GetEdgeTagValue (in Index: Long): Long
- GetEdgeType (in edgeIndex: Long, out pType: esriTinEdgeType)
- GetNode (in Index: Long): ITinNode
- GetNodeTagValue (in Index: Long): Long
- GetNodeZ (in Index: Long): Double
- GetTriangle (in Index: Long): ITinTriangle
- GetTriangleSeeds (in pFilter: ITinDynamicFilter, in bStopAtEnforcedEdge: Boolean): IEnumTinTriangle
- GetTriangleTagValue (in Index: Long): Long
- GetUniqueTagValues (in Type: esriTinElementType): ILongArray
- Init (in Name: String)
- IsVoidZ (in Value: Double): Boolean
- MakeEdgeEnumerator (in pAreaOfInterest: IEnvelope, in Criteria: Long, in pFilter: ITinFilter): IEnumTinEdge
- MakeNodeEnumerator (in pAreaOfInterest: IEnvelope, in Criteria: Long, in pFilter: ITinFilter): IEnumTinNode
- MakeTriangleEnumerator (in pAreaOfInterest: IEnvelope, in Criteria: Long, in pFilter: ITinFilter): IEnumTinTriangle
- QueryEdge (in Index: Long, pEdge: ITinEdge)
- QueryEdgeAsLine (in Index: Long, pLine: ILine)
- QueryEdgeAsWKSPointZs (in Index: Long, out pFrom: WKSPointZ, out pTo: WKSPointZ)
- QueryNearestEdge (in pPoint: IPoint, pEdge: ITinEdge, pDistance: Double)
- QueryNearestNode (in pPoint: IPoint, pNode: ITinNode, pDistance: Double)
- QueryNode (in Index: Long, pNode: ITinNode)
- QueryNodeAsPoint (in Index: Long, pPoint: IPoint)
- QueryNodeAsWKSPointZ (in Index: Long, out pPoint: WKSPointZ)
- QueryTriangle (in Index: Long, pTriangle: ITinTriangle)
- QueryTriangleAsRing (in Index: Long, pRing: IRing)
- QueryTriangleAsWKSPointZs (in Index: Long, out pPi: WKSPointZ, out pPj: WKSPointZ, out pPk: WKSPointZ)
- SetEmpty

ITinAdvanced2 : ITinAdvanced
- ConvertToPolylines (pFeatureClass: IFeatureClass, in pFilter: ITinDynamicFilter, in pFieldName: Variant)
- FindTriangleIndex (in pPoint: IPoint): Long
- GetCountedUniqueTagValues (in Type: esriTinElementType, out ppValues: ILongArray, out ppCounts: ILongArray)
- GetLeftTriangleIndex (in edgeIndex: Long): Long
- GetNaturalNeighborZ (in X: Double, in Y: Double): Double
- GetNeighborEdgeIndex (in edgeIndex: Long): Long
- GetNodeDegree (in nodeIndex: Long, in bEnforcedEdgesOnly: Boolean): Long
- GetNodeSource (in nodeIndex: Long): esriTinNodeSourceType
- GetNodeSourceCounts (out pcOriginal: Long, out pcSuper: Long, out pcDensified: Long, out pcIntersection: Long, out pcUnknown: Long)
- GetRightTriangleIndex (in edgeIndex: Long): Long
- GetSpecialEdgeCounts (out pcHardDataEdges: Long, out pcSoftDataEdges: Long, out pcTagValueDataEdges: Long)
- HasEdgeType (in Type: esriTinEdgeType): Boolean
- IsEdgeInsideDataArea (in edgeIndex: Long): Boolean
- IsNodeInsideDataArea (in nodeIndex: Long): Boolean
- IsNodeOnDomainBoundary (in nodeIndex: Long): Boolean
- IsTriangleInsideDataArea (in triangleIndex: Long): Boolean
- QueryAllEdgeIndicesAroundNode (in nodeIndex: Long, pEdges: ILongArray)
- QueryBeginEndNodeIndices (in edgeIndex: Long, out pBegin: Long, out pEnd: Long)
- QueryEdgeIndicesAroundNode (in nodeIndex: Long, pEdges: ILongArray)
- QueryElementAsGeometry (in Type: esriTinElementType, in Index: Long, pGeometry: IGeometry)
- QueryNaturalNeighborIndices (in pPoint: IPoint, pNodes: ILongArray)
- QueryNeighborsAndWeights (in X: Double, in Y: Double, pNeighbors: ILongArray, pWeights: IDoubleArray)
- QueryNodeIndicesAroundNode (in nodeIndex: Long, pNodes: ILongArray)
- QueryTriangleEdgeIndices (in triangleIndex: Long, out pA: Long, out pB: Long, out pC: Long)
- QueryTriangleIndicesAroundNode (in nodeIndex: Long, pTriangles: ILongArray)
- QueryTriangleNeighborhoodIndices (in pPoint: IPoint, pTriangles: ILongArray)
- QueryTriangleNodeIndices (in triangleIndex: Long, out pA: Long, out pB: Long, out pC: Long)
- SaveAsVersion (in newName: String, in ver: esriTinVersion, in pOverWrite: Variant)

ITinAdvanced3 : IUnknown
- TinVersion: esriTinVersion
- GetNextCCWEdgeIndex (in edgeIndex: Long): Long
- GetNextCWEdgeIndex (in edgeIndex: Long): Long
- GetNextEdgeIndexInTriangle (in edgeIndex: Long): Long
- GetPreviousEdgeIndexInTriangle (in edgeIndex: Long): Long
- QueryElementIndicesAroundNode (in Type: esriTinElementType, in localNodeIndex: Long, in triangleIndex: Long, pIndices: ILongArray)

ITinEdit : IUnknown
- IsDirty: Boolean
- IsEditable: Boolean
- IsInEditMode: Boolean
- AddFromFeatureClass (in pFeatureClass: IFeatureClass, in pFilter: IQueryFilter, in pHeightField: IField, in pTagValueField: IField, in Type: esriTinSurfaceType, in pbUseShapeZ: Variant)
- AddFromFeatureCursor (in pCursor: IFeatureCursor, in pHeightField: IField, in pTagValueField: IField, in Type: esriTinSurfaceType, in pbUseShapeZ: Variant)
- AddFromPixelBlock (in xOrigin: Double, in yOrigin: Double, in xPixelSize: Double, in yPixelSize: Double, in valueForNoData: Variant, in block: Variant, in ZTolerance: Double, in pMaxPoints: Variant, out pbToleranceAchieved: Variant)
- AddPointZ (in pPoint: IPoint, in TagValue: Long): Long
- AddShape (in pShape: IGeometry, in Type: esriTinSurfaceType, in TagValue: Long, in pZ: Variant)
- AddShapeZ (in pShape: IGeometry, in Type: esriTinSurfaceType, in TagValue: Long, in pbUseShapeZ: Variant)
- AddWKSPointZ (in pPoint: WKSPointZ, in vlue: Long): Long
- DeleteEdgeTagValues
- DeleteNode (in Index: Long)
- DeleteNodesOutsideDataArea
- DeleteNodeTagValues
- DeleteSelectedNodes
- DeleteTriangleTagValues
- InitNew (in pExtent: IEnvelope)
- PropagateTriangleTagValue (in pSeed: ITinTriangle, in newTagValue: Long, in bStopAtEnforcedEdge: Boolean)
- Refresh
- Save
- SaveAs (in newName: String, in pOverWrite: Variant)
- SetEdgeTagValue (in Index: Long, in Value: Long)
- SetEdgeType (in Index: Long, in Type: esriTinEdgeType)
- SetNodeTagValue (in Index: Long, in Value: Long)
- SetNodeZ (in Index: Long, in Z: Double)
- SetSpatialReference (in pSpatialReference: ISpatialReference)
- SetTriangleInsideDataArea (in Index: Long)
- SetTriangleOutsideDataArea (in Index: Long)
- SetTrianglesInsideDataArea
- SetTriangleTagValue (in Index: Long, in Value: Long)
- StartEditing: Boolean
- StopEditing (in bSaveEdits: Boolean): Boolean

ITinEdit2 : IUnknown
- AddFrom3dMultipointFeatureClass (in pFeatureClass: IFeatureClass, in pClippingFilter: ISpatialFilter)
- ResetExtent (in pExtent: IEnvelope)
- SaveSnapshot (in Name: String, in bOverWrite: Boolean)
- SetToConstrainedDelaunay
- SwapEdge (in Index: Long, in Type: esriTinEdgeType, in Tag: Long): Long

ITinFeatureEdit : IUnknown
- ElementsIgnoredInConflictTest: Long
- IsInMemoryEditMode: Boolean
- StopAtEnforcedEdge: Boolean
- StopAtJuncture: Boolean
- AddPointZ (in pPoint: IPoint, in TagValue: Long, pSeed: ITinNode)
- AddPolygon (in pShape: IPolygon, in Type: esriTinEdgeType, in TagValue: Long, in edgeTagValue: Long, in NodeTagValue: Long, pSeed: ITinTriangle, in pZ: Variant)
- AddPolygonZ (in pShape: IPolygon, in Type: esriTinEdgeType, in TagValue: Long, in edgeTagValue: Long, in NodeTagValue: Long, pSeed: ITinTriangle)
- AddPolyline (in pShape: IPolyline, in Type: esriTinEdgeType, in TagValue: Long, in NodeTagValue: Long, pSeed: ITinEdge, in pZ: Variant)
- AddPolylineZ (in pShape: IPolyline, in Type: esriTinEdgeType, in TagValue: Long, in NodeTagValue: Long, pSeed: ITinEdge)
- AddPolyObjects (in pFeatureClass: IFeatureClass, in pFilter: IQueryFilter, in pHeightField: IField, in pValueField: IField, in bSetEdgeTagValue: Boolean, in bSetNodeTagValue: Boolean, in Type: esriTinEdgeType)
- CanAdd (in pShape: IGeometry, in spacing: Double): Boolean
- CanAddVertex (in pPoly: IGeometry, in pNewPoint: IPoint, in bClose: Boolean, in spacing: Double): Boolean
- CanDeleteVertex (in pNode: ITinNode, in pSeed: ITinFeatureSeed, in spacing: Double): Boolean
- CanMove (in pSeed: ITinFeatureSeed, in dx: Double, in dy: Double, spacing: Double): Boolean
- CanMoveVertex (in pNode: ITinNode, in pSeed: ITinFeatureSeed, in pNewLocation: WKSPoint, in spacing: Double): Boolean
- CanReplace (in pShape: IGeometry, in pSeed: ITinFeatureSeed, in spacing: Double): Boolean
- CanRotate (in pSeed: ITinFeatureSeed, in pOrigin: IPoint, in Angle: Double, in spacing: Double): Boolean
- CanScalePolygon (in pSeed: ITinTriangle, in pOrigin: IPoint, in Scale: Double, in spacing: Double): Boolean
- ClusterPoints (in pSeed: ITinNode, in spacing: Double, in pFilter: ITinFilter): IEnumTinNode
- ConvertToPolygons (pFeatureClass: IFeatureClass, in pFilter: ITinDynamicFilter, in bStopAtEnforcedEdge: Boolean, in bSkipDensifiedNodes: Boolean, in pFieldName: Variant)
- ConvertToPolylines (pFeatureClass: IFeatureClass, in pFilter: ITinDynamicFilter, in bSkipDensifiedNodes: Boolean, in pFieldName: Variant)
- Delete (in pSeed: ITinFeatureSeed)
- DeleteVertex (in pNode: ITinNode, in pSeed: ITinFeatureSeed)
- ExtractPolygon (in pSeed: ITinFeatureSeed, in bGetZ: Boolean, in bSkipDensifiedNodes: Boolean): IPolygon
- ExtractPolyline (in pSeed: ITinFeatureSeed, in bGetZ: Boolean, in bSkipDensifiedNodes: Boolean): IPolyline
- IsNodeShared (in pNode: ITinNode): Boolean
- Merge (in pCommonEdge: ITinEdge, in newValue: Long, in bKeepCommonNodes: Boolean)
- Move (in pSeed: ITinFeatureSeed, in dx: Double, in dy: Double, in bGetNewZ: Boolean)
- MoveVertex (in pNode: ITinNode, in pSeed: ITinFeatureSeed, in pNewLocation: WKSPoint, in bGetNewZ: Boolean)
- RefreshTagValues
- RemoveIslands (in pSeed: ITinTriangle, in Area: Double, bKeepNodes: Boolean, bZeroTag: Boolean)
- Rotate (in pSeed: ITinFeatureSeed, in pOrigin: IPoint, Angle: Double, in bGetNewZ: Boolean)
- ScalePolygon (in pSeed: ITinTriangle, in pOrigin: IPoint, Scale: Double, in bGetNewZ: Boolean)
- StartInMemoryEditing: Boolean

ISurface : IFunctionalSurface
- ZFactor: Double
- AsPolygons (pFeatureClass: IFeatureClass, in Type: esriSurfaceConversionType, in pClassBreaks: IDoubleArray, in pClassCodes: ILongArray, in FieldName: Variant)
- Contour (in rootHeight: Double, in interval: Double, pFeatureClass: IFeatureClass, in FieldName: String, in digitsAfterDecimalPoint: Long)
- ContourList (in pBreaks: IDoubleArray, pFeatureClass: IFeatureClass, in FieldName: String, in digitsAfterDecimalPoint: Long)
- GetAspectDegrees (in pPoint: IPoint): Double
- GetAspectRadians (in pPoint: IPoint): Double
- GetContour (in pPoint: IPoint, out ppContour: IPolyline, out pElevation: Double)
- GetElevation (in pPoint: IPoint): Double
- GetLineOfSight (in pObserver: IPoint, in pTarget: IPoint, out ppObstruction: IPoint, out ppVisibleLines: IPolyline, out ppInvisibleLines: IPolyline, out pbIsVisible: Boolean, in bApplyCurvature: Boolean, in bApplyRefraction: Boolean, in pRefractionFactor: Variant)
- GetProfile (in pShape: IGeometry, out ppProfile: IGeometry, in pStepSize: Variant)
- GetProjectedArea (in referenceHeight: Double, in Type: esriPlaneReferenceType): Double
- GetSlopeDegrees (in pPoint: IPoint): Double
- GetSlopePercent (in pPoint: IPoint): Double
- GetSlopeRadians (in pPoint: IPoint): Double
- GetSteepestPath (in pPoint: IPoint): IPolyline
- GetSurfaceArea (in referenceHeight: Double, in Type: esriPlaneReferenceType): Double
- GetVolume (in reference: Double, in Type: esriPlaneReferenceType): Double
- InterpolateShape (in pShape: IGeometry, out ppOutShape: IGeometry, in pStepSize: Variant)
- InterpolateShapeVertices (in pShape: IGeometry, out ppOutShape: IGeometry)
- IsVoidZ (in Value: Double): Boolean
- Locate (in pRay: IRay, in hint: Long): IPoint
- LocateAll (in pRay: IRay, in hint: Long): IDoubleArray
- QueryNormal (in pLocation: IPoint, pNormal: IVector3D)
- QueryPixelBlock (in xOrigin: Double, in yOrigin: Double, in xPixelSize: Double, in yPixelSize: Double, in Type: esriRasterizationType, in valueForNoData: Variant, in block: Variant)
- QuerySurfaceLength (in pShape: IGeometry, out pLength: Double, in pStepSize: Variant)

ITinSurface : ISurface
- RasterInterpolationMethod: esriSurfaceInterpolationType
- SunPosition: WKSPointZ
- GetPartialVolumeAndArea (in reference: Double, in Type: esriPlaneReferenceType, in pTriangles: IEnumTinTriangle, in pVolume: Variant, in pSurfaceArea: Variant, in pProjectedArea: Variant)
- GetSurfaceElement (in pPoint: IPoint): ITinSurfaceElement

ITinSurface2 : ITinSurface
- ConvertToMultiPatches (in pFeatureClass: IFeatureClass, in maxPatchSize: Long, in maxStripSize: Long)
- DecimateNodes (in pAreaOfInterest: IEnvelope, in ZTolerance: Double, in bCopyBreakline: Boolean, in pMaxRemainingNodeCount: Variant, out ppNewTin: ITin, in pbToleranceAchieved: Variant)
- DecimateNodesByCount (in pAreaOfInterest: IEnvelope, in maxRemainingNodeCount: Long, in bCopyBreakline: Boolean, out ppNewTin: ITin)
- InterpolateAsMultiPatch (in pShape: IPolygon, in maxStripSize: Long, out ppMultiPatch: IMultiPatch)
- LocateMultiple (in pRay: IRay): IMultipoint

ITinSurface3 : IUnknown
- InterpolationMethod: esriSurfaceInterpolationType
- ProfileWeedTolerance: Double
- Extract (in pBoundary: IPolygon): ITin
- GetVolumeAndArea (in pAOI: IGeometry, in referenceHeight: Double, in Type: esriPlaneReferenceType, out pbIsOutsideDataArea: Boolean, in pVolume: Variant, in pSurfaceArea: Variant, in pProjectedArea: Variant)
- InterpolateZ (in X: Double, in Y: Double): Double
- Intersect (in pReferenceSurface: ITinSurface, in pAOI: IGeometry, in pOutFeatureClass: IFeatureClass, in volumeFieldName: String, in surfaceAreaFieldName: String, in codeFieldName: String)
- QueryLocate (in pRay: IRay, in hint: Long, pLocation: IPoint)
- QueryLocateMultiple (in pRay: IRay, pLocations: IMultipoint)
- QueryTriangleNormal (in Triangle: Long, pNormal: IVector3D)

ITinSelection : IUnknown
- SelectedElementCount (in Type: esriTinElementType): Long
- ClearSelection (in Type: esriTinElementType)
- FlipSelection (in Type: esriTinElementType, in bDataElementsOnly: Boolean)
- GetSelection (in Type: esriTinElementType): IEnumTinElement
- HasSelection (in Type: esriTinElementType): Boolean
- IsSelected (in Index: Long, in Type: esriTinElementType): Boolean
- QuerySelectionExtent (in Type: esriTinElementType, in pExtent: IEnvelope)
- SelectAll (in Type: esriTinElementType, in bDataElementsOnly: Boolean)
- SelectByArea (in Type: esriTinElementType, in pArea: IPolygon, in bPassThrough: Boolean, in bDataElementsOnly: Boolean, in action: esriTinSelectionType)
- SelectByEnvelope (in Type: esriTinElementType, in pEnvelope: IEnvelope, in bPassThrough: Boolean, in bDataElementsOnly: Boolean, in action: esriTinSelectionType)
- SetSelected (in Index: Long, in Type: esriTinElementType, in action: esriTinSelectionType)
- SetSelection (in pElements: IEnumTinElement, in action: esriTinSelectionType)

ITinNodeCollection : IUnknown
- HasNodeTagValues: Boolean
- NodeCount: Long
- ConvertToVoronoiRegions (pFeatureClass: IFeatureClass, in pFilter: ITinFilter, in pClippingPolygon: IPolygon, in indexFieldName: String, in tagFieldName: String)
- GetNode (in Index: Long): ITinNode
- GetNodeTagValue (in Index: Long): Long
- GetNodeZ (in Index: Long): Double
- GetVoronoiRegion (in nodeIndex: Long, in pClippingPolygon: IPolygon): IPolygon
- QueryNode (in Index: Long, pNode: ITinNode)
- QueryNodeAsPoint (in Index: Long, pPoint: IPoint)
- QueryNodeAsWKSPointZ (in Index: Long, out pPoint: WKSPointZ)

Tin
Interfaces: IDataset, IGeoDataset, IMetadata, IMetadataEdit, ITin, INativeTypeInfo, ISupportErrorInfo, ITinAdvanced, ITinAdvanced2, ITinAdvanced3, ITinNodeCollection, IFunctionalSurface, ISurface, ITinSurface, ITinSurface2, ITinSurface3, ITinEdit, ITinEdit2, ITinSelection, ITinFeatureEdit, ITinNodeInfo, ITinEditErrorLog, ISurfaceIntersectionEvents

TinName
Interfaces: IDatasetName, IMetadata, IMetadataEdit, IName, INativeTypeInfo, IPersist, IPersistStream

TinNativeType
Interfaces: INativeType

TinNodeArray
Interfaces: ITinNodeArray

ITinNodeArray : IUnknown
- Count: Long
- Element (in Index: Long): ITinNode

TinEdgeArray
Interfaces: ITinEdgeArray

ITinEdgeArray : IUnknown
- Count: Long
- Element (in Index: Long): ITinEdge

TinTriangleArray
Interfaces: ITinTriangleArray

ITinTriangleArray : IUnknown
- Count: Long
- Element (in Index: Long): ITinTriangle

TinPolygon
Interfaces: ITinPolygon, ISupportErrorInfo

ITinPolygon : IUnknown
- AsEdges: IEnumTinEdge
- AsNodes: IEnumTinNode
- AsPolygon (in pNodeFilter: ITinFilter, in bGetZ: Boolean): IPolygon
- AsTriangles: IEnumTinTriangle

TinPolyline
Interfaces: ITinPolyline, ISupportErrorInfo

ITinPolyline : IUnknown
- AsEdges: IEnumTinEdge
- AsNodes: IEnumTinNode
- AsPolyline (in pNodeFilter: ITinFilter, in bGetZ: Boolean): IPolyline

TinSurfaceElement
Interfaces: ITinSurfaceElement

ITinSurfaceElement : IUnknown
- AspectDegrees: Double
- Elevation: Double
- FaceTagValue: Long
- NodeTagValue: Long
- SlopeDegrees: Double

TinElement
Interfaces: ITinElement, ISupportErrorInfo, ITinFeatureSeed

ITinElement : IUnknown
- Index: Long
- IsEmpty: Boolean
- IsInsideDataArea: Boolean
- TagValue: Long
- TheTin: ITin
- Init (in pTin: ITin, in Index: Long)
- SetEmpty

ITinFeatureSeed : IUnknown
- Index: Long
- TagValue: Long
- UseTagValue: Boolean

TinEdge
Interfaces: ITinEdge

ITinEdge : ITinElement
- AzimuthDegrees: Double
- FromNode: ITinNode
- LeftTriangle: ITinTriangle
- Length: Double
- Length3D: Double
- RightTriangle: ITinTriangle
- ToNode: ITinNode
- Type: esriTinEdgeType
- GetNeighbor: ITinEdge
- GetNextCCW: ITinEdge
- GetNextCW: ITinEdge
- GetNextInTriangle: ITinEdge
- GetPreviousInTriangle: ITinEdge
- QueryAsLine (pLine: ILine)
- QueryAsWKSPointZs (out pFrom: WKSPointZ, out pTo: WKSPointZ)

TinNode
Interfaces: ITinNode, ITinNode2

ITinNode : ITinElement
- X: Double
- Y: Double
- Z: Double
- GetAdjacentNodes: ITinNodeArray
- GetIncidentEdges: ITinEdgeArray
- GetIncidentTriangles: ITinTriangleArray
- GetVoronoiRegion (in pClippingPolygon: IPolygon): IPolygon
- QueryAsPoint (pPoint: IPoint)
- QueryAsWKSPointZ (out pPoint: WKSPointZ)

ITinNode2 : ITinNode
- Degree (in bEnforcedEdgesOnly: Boolean): Long
- IsOnDomainBoundary: Boolean
- Source: esriTinNodeSourceType
- IncidentTriangle: ITinTriangle
- IncidentTriangleIndex: Long
- QueryAdjacentNodeIndices (pNodes: ILongArray)
- QueryIncidentEdgeIndices (pEdges: ILongArray)
- QueryIncidentTriangleIndices (pTriangles: ILongArray)

TinTriangle
Interfaces: ITinTriangle

ITinTriangle : ITinElement
- Area: Double
- Area3D: Double
- AspectDegrees: Double
- Edge (in Index: Long): ITinEdge
- Node (in Index: Long): ITinNode
- Perimeter: Double
- Perimeter3D: Double
- SlopeDegrees: Double
- SlopePercent: Double
- QueryAdjacentTriangleIndices (out pTi: Long, out pTj: Long, out pTk: Long)
- QueryAdjacentTriangles (pTi: ITinTriangle, pTj: ITinTriangle, pTk: ITinTriangle)
- QueryAsRing (pRing: IRing)
- QueryCentroid (pCentroid: IPoint)
- QueryCircumCircle (pCenter: IPoint, out pRadius: Double)
- QueryElevationBand (in zLowerBound: Double, in zUpperBound: Double, out pCount: Long, out pRegion: WKSPointZ)
- QueryNormal (pNormal: IVector3D)
- QueryVertices (out pPi: WKSPointZ, out pPj: WKSPointZ, out pPk: WKSPointZ)

TinImporter
Interfaces: ITinImporter

ITinImporter : IUnknown
- GetTinNamesFromLandXML (in xmlName: String, in pTrackCancel: ITrackCancel, out ppOutTinNames: IStringArray)
- ImportFromLandXML (in xmlName: String, in TinName: String, in pIndices: ILongArray, in pTrackCancel: ITrackCancel, out ppOutTinNames: IStringArray)

Workspace
Interfaces: ITinWorkspace (optional)

ITinWorkspace : IUnknown
- IsTin (in Name: String): Boolean
- OpenTin (in Name: String): ITin

TinEnumerator
Interfaces: IEnumTinElement

IEnumTinElement : IUnknown
- Next: ITinElement
- QueryNext (in pElement: ITinElement)
- Reset

TinNodeEnumerator
Interfaces: IEnumTinNode, ISupportErrorInfo, IEnumTinElement

IEnumTinNode : IUnknown
- Next: ITinNode
- QueryNext (pNode: ITinNode)
- QueryNextAsWKSPointZ (out pPoint: WKSPointZ, out pbIsEnd: Boolean)
- Reset

TinEdgeEnumerator
Interfaces: IEnumTinEdge, IEnumTinElement, ISupportErrorInfo

IEnumTinEdge : IUnknown
- Next: ITinEdge
- QueryNext (pEdge: ITinEdge)
- QueryNextAsWKSPointZs (out pFrom: WKSPointZ, out pTo: WKSPointZ, out pbIsEnd: Boolean)
- Reset

TinTriangleEnumerator
Interfaces: IEnumTinTriangle, IEnumTinElement, ISupportErrorInfo

IEnumTinTriangle : IUnknown
- Next: ITinTriangle
- NextTriangleStrip (in maxSize: Long): ITinNodeArray
- NextTriangleStripIndices (in maxSize: Long): ILongArray
- QueryNext (pTriangle: ITinTriangle)
- QueryNextAsWKSPointZs (out pPi: WKSPointZ, out pPj: WKSPointZ, out pPk: WKSPointZ, out pbIsEnd: Boolean)
- Reset

TinFilter
Interfaces: ITinFilter, ISupportErrorInfo

ITinFilter : IUnknown
- DataElementsOnly: Boolean
- CanPass (in pElement: ITinElement): Boolean

TinNodeSourceFilter
Interfaces: ISupportErrorInfo, ITinFilter, ITinNodeSourceFilter

ITinNodeSourceFilter : ITinFilter
- Criteria: Long

TinDynamicFilter
Interfaces: ITinDynamicFilter

ITinDynamicFilter : ITinFilter
- Init (in pElement: ITinElement): Long

TinDataElementFilter

TinEdgeTypeFilter
Interfaces: ITinEdgeTypeFilter, ITinEdgeTypeFilter2

ITinEdgeTypeFilter : ITinFilter
- Type: esriTinEdgeType

ITinEdgeTypeFilter2 : ITinEdgeTypeFilter
- RegularEdgesExcluded: Boolean

TinTriangleFilter
Interfaces: ITinTriangleFilter

ITinTriangleFilter : ITinFilter
- ActiveBound: esriTinBoundType
- ClassBreakCodes: ILongArray
- ClassBreaks: IDoubleArray
- LowerBound: Double
- PropertyType: esriTinTrianglePropertyType
- UniqueValue: Double
- UpperBound: Double

TinValueFilter
Interfaces: ITinValueFilter, ITinValueFilter2

ITinValueFilter : ITinFilter
- ActiveBound: esriTinBoundType
- ClassBreakCodes: ILongArray
- ClassBreaks: ILongArray
- LowerBound: Long
- UniqueValue: Long
- UpperBound: Long

ITinValueFilter2 : ITinValueFilter
- ZeroTagValueExcluded: Boolean

Enumerations

esriPlaneReferenceType
0 - esriPlaneReferenceAbove
1 - esriPlaneReferenceBelow

esriRasterizationType
0 - esriDegreeSlopeAsRaster
1 - esriPercentageSlopeAsRaster
2 - esriDegreeAspectAsRaster
3 - esriElevationAsRaster
4 - esriHillShadeAsRaster

esriSurfaceConversionType
0 - esriDegreeSlope
1 - esriPercentageSlope
2 - esriDegreeAspect

esriSurfaceInterpolationType
0 - esriLinearInterpolation
1 - esriNaturalNeighborInterpolation
2 - esriNaturalNeighborZmin
3 - esriNaturalNeighborZmax
4 - esriNaturalNeighborZaverage
5 - esriNaturalNeighborZnearest

esriTinBoundType
0 - esriTinClassBreaks
1 - esriTinSimpleBounds
2 - esriTinUniqueValue
3 - esriTinSimpleBoundsExclude

esriTinEdgeType
0 - esriTinRegularEdge
1 - esriTinSoftEdge
2 - esriTinHardEdge

esriTinElementType
0 - esriTinNode
1 - esriTinEdge
2 - esriTinTriangle

esriTinIgnoredElementType
1 - esriTinNothing
2 - esriTinNodesWithNonZeroTag
4 - esriTinNodesWithZeroTag

esriTinNodeEditInfo
1 - esriTinNodeUnknown
2 - esriTinNodeSuperNode
4 - esriTinNodeOriginal
8 - esriTinNodeDensified
16 - esriTinNodeLineEnforce
32 - esriTinNodeIntersection
64 - esriTinNodeLineTouch
128 - esriTinNodeCoincident
256 - esriTinNodeSnap
512 - esriTinNodeModified

esriTinNodeSourceType
1 - esriTinUnknown
2 - esriTinSuperNode
4 - esriTinOriginal
8 - esriTinDensified
32 - esriTinIntersection

esriTinQualification
1 - esriTinAll
2 - esriTinInsideTin
4 - esriTinInsideDataArea
8 - esriTinSingleEdge
16 - esriTinDoubleEdges

esriTinSelectionType
0 - esriTinSelectionNew
1 - esriTinSelectionAdd
2 - esriTinSelectionSubtract
3 - esriTinSelectionFlip

esriTinSurfaceType
0 - esriTinContour
1 - esriTinHardLine
2 - esriTinHardClip
3 - esriTinHardErase
4 - esriTinHardReplace
5 - esriTinHardValueFill
6 - esriTinZLessHardLine
7 - esriTinZLessHardClip
8 - esriTinZLessHardErase
9 - esriTinSoftLine
10 - esriTinSoftClip
11 - esriTinSoftErase
12 - esriTinSoftReplace
13 - esriTinSoftValueFill
14 - esriTinZLessSoftLine
15 - esriTinZLessContour
16 - esriTinZLessSoftClip
17 - esriTinZLessSoftErase
18 - esriTinMassPoint

esriTinTrianglePropertyType
0 - esriTinDegreeSlope
1 - esriTinPercentageSlope
2 - esriTinDegreeAspect
3 - esriTinArea
4 - esriTinSurfaceArea
5 - esriTinPerimeter
6 - esriTinSurfacePerimeter

esriTinVersion
0 - esriTin70001
1 - esriTin80001

esriTinError
-2147219456 - E_TIN_WORKSPACE_EXISTS
-2147219455 - E_TIN_WORKSPACE_NOT_CONNECTED
-2147219454 - E_TIN_WORKSPACE_ALREADY_CONNECTED
-2147219453 - E_TIN_EMPTY_OBJECT
-2147219452 - E_TIN_WRONG_DATASET_TYPE
-2147219451 - E_TIN_WRONG_TOPOLOGY
-2147219450 - E_TIN_NUMERIC_LIMIT
-2147219449 - E_TIN_FAILED_TO_OPEN
-2147219448 - E_TIN_FAILED_TO_SAVE
-2147219447 - E_TIN_FAILED_TO_COPY
-2147219446 - E_TIN_FAILED_TO_RENAME
-2147219445 - E_TIN_FAILED_TO_DELETE
-2147219444 - E_TIN_FILE_EXISTS
-2147219443 - E_TIN_OPERATION_NOT_SUPPORTED
-2147219442 - E_TIN_OUT_OF_MEMORY
-2147219441 - E_TIN_IN_EDIT_MODE
-2147219440 - E_TIN_NOT_IN_EDIT_MODE
-2147219439 - E_TIN_CANNOT_CREATE_GEOMETRY
-2147219438 - E_TIN_POLYGON_NOT_DEFINED
-2147219437 - E_TIN_POLYLINE_NOT_DEFINED
-2147219436 - E_TIN_HAS_VOID_Z
-2147219435 - E_TIN_HAS_NO_VALUE
-2147219434 - E_TIN_NODE_UNDELETABL
-2147219433 - E_TIN_FIELD_ALREADY_EXISTS
-2147219432 - E_TIN_OBJECT_NOT_EMPTY
-2147219431 - E_TIN_WRONG_FIELD_TYPE
-2147219430 - E_TIN_WRONG_GEOMETRY_TYPE
-2147219429 - E_TIN_NEED_VALUE
-2147219428 - E_TIN_FAILED_TO_OVER_WRITE
-2147219427 - E_TIN_ZERO_VALUE
-2147219426 - E_TIN_INDEX_OUT_OF_RANGE
-2147219425 - E_TIN_INVALID_NAME
-2147219424 - E_TIN_ALREADY_INITIALIZED
-2147219423 - E_TIN_MEMORY_TIN
-2147219422 - E_TIN_FAILED_TO_SWAP
-2147219421 - E_TIN_NAN
-2147219420 - E_TIN_SUPER_NODE
-2147219419 - E_TIN_FAILED_TO_CREATE_FILE
-2147219418 - E_TIN_FAILED_TO_OPEN_FILE
-2147219417 - E_TIN_FAILED_TO_DELETE_FILE
-2147219416 - E_TIN_GEOMETRY_HAS_NO_Z
-2147219415 - E_TIN_WRONG_VARIANT_TYPE
-2147219414 - E_TIN_WRONG_SURFACE_TYPE
-2147219413 - E_TIN_WRONG_ELEMENT_TYPE
-2147219412 - E_TIN_DIFFERENT_TIN
-2147219411 - E_TIN_FIELD_ERROR
-2147219410 - E_TIN_NEED_TRIANGLE_SEED
-2147219409 - E_TIN_WRONG_SEED_TYPE
-2147219408 - E_TIN_WRONG_GEN_SEED
-2147219407 - E_TIN_FAILED_UPDATE_SEED
-2147219406 - E_TIN_NODE_SHARED
-2147219405 - E_TIN_INTERNAL_ERROR
-2147219404 - E_TIN_FILTER_REQUIRED
-2147219403 - E_TIN_NO_SPATIALREF_INFO
-2147219402 - E_TIN_NOT_PROJECTED_SYSTEM
-2147219401 - E_TIN_METADATA_ERROR
-2147219400 - E_TIN_CANNOT_CREATE_OBJ
-2147219399 - E_TIN_UPDATE_ERROR
-2147219398 - E_TIN_BAD_CLASS_BREAKS
-2147219397 - E_TIN_BAD_CLASS_CODES
-2147219396 - E_TIN_UNSUPPORTED_SPATIAL_REFERENCE
-2147219395 - E_TIN_LICENSE_NOT_AVAILABLE
-2147219394 - E_TIN_EXTENSION_DISABLED
-2147219393 - E_TIN_BELOW_V8
-2147219392 - E_TIN_IN_MEMORY_EDIT
-2147219391 - E_TIN_WRONG_EDGE_TYPE
-2147219390 - E_TIN_BAD_VALUE
-2147219389 - E_TIN_FATAL
-2147219388 - E_TIN_FDS_FATAL
-2147219387 - E_TIN_CANCELLED
-2147219386 - E_TIN_MUST_BE_DELAUNAY
-2147219385 - E_TIN_XML_CORRUPTED
-2147219384 - E_TIN_INVALID_LANDXML_FILE
-2147219383 - E_TIN_FAILED_RESET_EXTENT
-2147219382 - E_TIN_NULL_FIELD_VALUE

Geodatabase Object Model
Data Transfer

Esri® ArcGIS® 10.3.1

DataConverter Objects

SimpleDataConverter

ISimpleDataConverter
IConnectionPointContainer
IFeatureProgress
ISupportErrorInfo

ISimpleDataConverter : IUnknown
- ConfigurationKeyword: String
- FlushInterval: Long
- InputDatasetName: IDatasetName
- InputQueryFilter: IQueryFilter
- IsFeatureTypeSimple: Boolean
- OutputDatasetName: IDatasetName
- OutputFeatureDatasetName: IFeatureDatasetName
- OutputFields: IFields
- OutputGeometryDef: IGeometryDef
- ParentWindowHandle: OLE_HANDLE

- Convert: IEnumInvalidObject
- Reset

ISimpleDataConverter2

ISimpleDataConverter2 : ISimpleDataConverter
- DataConvertProcess: IDataConvertProcess
- InputSelectionSet: ISelectionSet

FeatureDataConverter

IFeatureDataConverter
ISupportErrorInfo
IConnectionPointContainer
IFeatureProgress

IFeatureDataConverter : IUnknown
- ConvertFeatureClass (in InputDatasetName: IFeatureClassName, in InputQueryFilter: IQueryFilter, in outputFDatasetName: IFeatureDatasetName, in outputFClassName: IFeatureClassName, in OutputGeometryDef: IGeometryDef, in OutputFields: IFields, in configKey: String, in FlushInterval: Long, in parentHWND: OLE_HANDLE): IEnumInvalidObject
- ConvertFeatureDataset (in inputFDatasetName: IFeatureDatasetName, in outputFDatasetName: IFeatureDatasetName, in OutputGeometryDef: IGeometryDef, in configKey: String, in FlushInterval: Long, in parentHWND: OLE_HANDLE): IEnumInvalidObject
- ConvertTable (in InputDatasetName: IDatasetName, in InputQueryFilter: IQueryFilter, in OutputDatasetName: IDatasetName, in OutputFields: IFields, in configKey: String, in FlushInterval: Long, in parentHWND: OLE_HANDLE): IEnumInvalidObject

IFeatureDataConverter2

IFeatureDataConverter2 : IUnknown
- ConvertFeatureClass (in inputFClassName: IDatasetName, in InputQueryFilter: IQueryFilter, in InputSelectionSet: ISelectionSet, in outputFDatasetName: IFeatureDatasetName, in outputFClassName: IFeatureClassName, in OutputGeometryDef: IGeometryDef, in OutputFields: IFields, in configKey: String, in FlushInterval: Long, in parentHWND: OLE_HANDLE): IEnumInvalidObject
- ConvertFeatureDataset (in inputFDatasetName: IFeatureDatasetName, in outputFDatasetName: IFeatureDatasetName, in OutputGeometryDef: IGeometryDef, in configKey: String, in FlushInterval: Long, in parentHWND: OLE_HANDLE): IEnumInvalidObject
- ConvertTable (in InputDatasetName: IDatasetName, in InputQueryFilter: IQueryFilter, in InputSelectionSet: ISelectionSet, in OutputDatasetName: IDatasetName, in OutputFields: IFields, in configKey: String, in FlushInterval: Long, in parentHWND: OLE_HANDLE): IEnumInvalidObject

EnumInvalidObject

IEnumInvalidObject

IEnumInvalidObject : IUnknown
- Next: IInvalidObjectInfo
- Reset

InvalidObjectInfo

IInvalidObjectInfo

InvalidObjectInfo: IUnknown
- ErrorDescription: String
- InvalidObjectID: Long

GeoDBDataTransfer

IGeoDBDataTransfer
IConnectionPointContainer
IFeatureProgress

IGeoDBDataTransfer : IUnknown
- GenerateNameMapping (in from: IEnumName, in toName: IName, out to: IEnumNameMapping): Boolean
- NumberObjectsToTransfer (in from: IEnumNameMapping): Long
- Transfer (in from: IEnumNameMapping, in toName: IName)

IGeoDBDataTransfer2

IGeoDBDataTransfer2 : IGeoDBDataTransfer
- Delete (in from: IEnumNameMapping, in toName: IName)

EnumNameMapping

IEnumNameMapping

IEnumNameMapping : IUnknown
- FindDatasetName (in Name: String, in Type: esriDatasetType): INameMapping
- FindDomain (in Name: String): INameMapping
- Next: INameMapping
- Reset

NameMapping

INameMapping

INameMapping : IUnknown
- Children: IEnumNameMapping
- ConfigKeyword: String
- NameConflicts: Boolean
- SourceObject: IUnknown
- TargetName: String

- GetSuggestedName (in toName: IName): String
- ValidateTargetName (in toName: IName)

INameMapping2

INameMapping2 : INameMapping
- ConfigKeyword: String
- Created: Boolean

FieldChecker

IFieldChecker

IFieldChecker : IUnknown
- InputWorkspace: IWorkspace
- ValidateDictionary: ISqlKeywordDictionary
- ValidateWorkspace: IWorkspace

- Validate (in inputField: IFields, out error: IEnumFieldError, out fixedFields: IFields)
- ValidateField (in FieldIndex: Long, in inputFields: IFields, out error: IEnumFieldError, out fixedFields: IFields)
- ValidateTableName (in TableName: String, out fixedName: String): Long

EnumFieldError

IEnumFieldError

IEnumFieldError : IUnknown
- Next: IFieldError
- Reset

FieldError

IFieldError

IFieldError: IUnknown
- FieldError: esriFieldNameErrorType
- FieldIndex: Long

Workspace

IWorkspaceReplicas

IWorkspaceReplicas : IUnknown
- ReplicaByGuid (in ReplicaGuid: String): IReplica
- ReplicaByID (in ReplicaID: Long): IReplica
- ReplicaByName (in replicaName: String): IReplica
- Replicas: IEnumReplica

- RefreshReplicas

IWorkspaceReplicas2

IWorkspaceReplicas2 : IWorkspaceReplicas
- RefreshReplica (in ReplicaGuid: String)

IWorkspaceReplicasAdmin3

IWorkspaceReplicasAdmin3 : IWorkspaceReplicasAdmin2
- ReplicasByDataset (in DatasetType: esriDatasetType, in DatasetID: Long): ILongArray

IWorkspaceReplicaDatasets

IWorkspaceReplicaDatasets : IUnknown
- ReplicaDatasetsByID (in ReplicaID: Long): IEnumReplicaDataset
- ReplicaDatasetsByName (in replicaName: String): IEnumReplicaDataset

IWorkspaceReplicasAdmin

IWorkspaceReplicasAdmin : IUnknown
- AlterReplica (in Replica: IReplica)
- RegisterReplica (in Replica: IReplica): Long
- UnregisterReplica (in Replica: IReplica, in removeCCVersion: Boolean)

IWorkspaceReplicasAdmin2

IWorkspaceReplicasAdmin2 : IWorkspaceReplicasAdmin
- IsReferencedByReplica (in DatasetType: esriDatasetType, in DatasetID: Long): Boolean

- AlterReplica2 (in Replica: IReplica, in PersistParentUserInfo: Boolean)
- CanRegisterReplicaDataset (in ReplicaDataset: IReplicaDataset, in Replica: IReplica): Boolean
- CanUnregisterReplicaDataset (in ReplicaDataset: IReplicaDataset): Boolean
- RegisterReplicaDataset (in RDataset: IReplicaDataset, in filter: esriRowsType, in UseGeometry: Boolean, in QueryDef: String, in pSelID: IFIDSet, in pToReplica: IReplica)
- UnregisterReplicaDataset (in ReplicaDataset: IReplicaDataset, in Replica: IReplica)

Distributed Geodatabase Core Objects

Replica

IReplica

IReplica : IUnknown
- ConnectionInfo: IWorkspaceName
- Description: IReplicaDescription
- Name: String
- Owner: String
- ParentID: Long
- ReplicaDatasets: IEnumReplicaDataset
- ReplicaDate: Double
- ReplicaGuid: String
- ReplicaID: Long
- ReplicaRole: esriReplicaType
- Version: String

IReplica2

IReplica2 : IReplica
- AccessType: esriReplicaAccessType
- AllReplicaDatasets: IEnumReplicaDataset
- HasConflicts: Boolean
- Log: IEnumReplicaLog
- MyGenerationNumber: Long
- ReconcilePolicyType: esriReplicaReconcilePolicyType
- ReplicaReceivingVersion: String
- ReplicaState: esriReplicaState
- SibConnectionString: String
- SibGenerationNumber: Long
- SibMyGenNumber: Long

- Init2 (in GPReplica: IGPReplica, in TargetWorkspace: IWorkspace)

IReplica3

IReplica3 : IReplica2
- UseArchiving: Boolean

IReplicaEdit

IReplicaEdit : IUnknown
- ConnectionInfo: IWorkspaceName
- Description: IReplicaDescription
- Name: String
- Owner: String
- ParentID: Long
- ReplicaDatasets: IEnumReplicaDataset
- ReplicaDate: Double
- ReplicaGuid: String
- ReplicaID: Long
- ReplicaRole: esriReplicaType
- Version: String

- Init (in otherReplica: IReplica)

IReplicaEdit2

IReplicaEdit2 : IReplicaEdit
- AccessType: esriReplicaAccessType
- AllReplicaDatasets: IEnumReplicaDataset
- ReconcilePolicyType: esriReplicaReconcilePolicyType
- SibConnectionString: String
- SibMyGenNumber: Long

ReplicaDataset

IReplicaDataset

IReplicaDataset : IUnknown
- DatasetID: Long
- Name: String
- ParentDatabase: String
- ParentOwner: String
- ReplicaID: Long
- Type: esriDatasetType

IReplicaDataset2

IReplicaDataset2 : IReplicaDataset
- TargetName: String

IReplicaDatasetEdit

IReplicaDatasetEdit : IUnknown
- DatasetID: Long
- Name: String
- ParentDatabase: String
- ParentOwner: String
- ReplicaID: Long
- Type: esriDatasetType

ReplicaDescription

IReplicaDescription

IReplicaDescription : IUnknown
- DatasetNames: IEnumName
- IsPrivateTable (in Index: Long): Boolean
- ReplicaModelType: esriReplicaModelType
- TableExcluded (in Index: Long): Boolean
- TableName (in Index: Long): IName
- TableNameCount: Long

- AddDatasetNames (in DatasetNames: IEnumName)
- FindTable (in DatasetName: IName): Long
- Init (in enumNames: IEnumName, in OutputWSName: IWorkspaceName, in ReuseSchema: Boolean, in deType: esriDataExtractionType)

IReplicaDescription2

IReplicaDescription2 : IReplicaDescription
- FetchRelatedObjects: Boolean
- RelationshipClassesInfo: IEnumRelationshipClassInfo

- FindRelationshipClassInfo (in RCName: IRelationshipClassName): IRelationshipClassInfo
- FindRelationshipClassInfoByName (in Name: String, in database: String, in Owner: String): IRelationshipClassInfo
- FindTable2 (in Name: String, in database: String, in Owner: String, in Type: esriDatasetType): Long

IReplicaDescription3

IReplicaDescription3 : IReplicaDescription2
- AccessType: esriReplicaAccessType
- ReplicaEnumNameMapping: IEnumNameMapping

IReplicaFilterDescription

IReplicaFilterDescription : IUnknown
- Geometry: IGeometry
- RowsType (in Index: Long): esriRowsType
- SpatialRelation: esriSpatialRelEnum
- TableDefQuery (in Index: Long): String
- TableSelection (in Index: Long): ISelectionSet
- TableUsesDefQuery (in Index: Long): Boolean

- TableUsesQueryGeometry (in Index: Long): Boolean
- TableUsesSelection (in Index: Long): Boolean

IReplicaFilterDescription2

IReplicaFilterDescription2 : IReplicaFilterDescription
- TableSelectionIDs (in Index: Long): IFIDSet

IReplicaFilterDescriptionEdit

IReplicaFilterDescriptionEdit : IUnknown
- Geometry: IGeometry
- RowsType (in Index: Long): esriRowsType
- SpatialRelation: esriSpatialRelEnum
- TableDefQuery (in Index: Long): String
- TableSelection (in Index: Long): ISelectionSet
- TableUsesDefQuery (in Index: Long): Boolean

- TableUsesQueryGeometry (in Index: Long): Boolean
- TableUsesSelection (in Index: Long): Boolean

IReplicaDescriptionExtensionManager

IReplicaDescriptionExtensionManager : IUnknown
- Extension (in Index: Long): IReplicaDescriptionExtension
- ExtensionCount: Long

- FindExtension (in pGUID: IUID): Long
- RegisterExtension (in rdExtension: IReplicaDescriptionExtension)
- UnRegisterExtension (in pGUID: IUID)

IXMLReplicaDescription

IXMLReplicaDescription : IUnknown
- BinaryGeometry: Boolean
- Compressed: Boolean
- OutputXMLFile: String

- Init2 (in enumNames: IEnumName, in OutputXMLFile: String, in BinaryGeometry: Boolean, in Compressed: Boolean, in deType: esriDataExtractionType)

IPersist
IPersistStream

ReplicaDescriptionExtension

IReplicaDescriptionExtension

IReplicaDescriptionExtension : IUnknown
- GUID: IUID
- Name: String

Enumerations

esriDataExtractionType
1 - esriDataExtraction
2 - esriDataCheckOut
3 - esriDataReplication
4 - esriDataXMLExport
5 - esriDataXMLCheckOut
6 - esriDataXMLExtraction
7 - esriDataXMLReplication
8 - esriRegisterXMLCheckOut
9 - esriRegisterCheckOut
10 - esriRegisterXMLReplica
11 - esriRegisterReplica

esriReplicaType
1 - esriReplicaTypeChild
2 - esriReplicaTypeParent
4 - esriCheckOutTypeChild
8 - esriCheckOutTypeParent
15 - esriReplicaTypeAny

esriReplicaModelType
1 - esriModelTypeSimple
2 - esriModelTypeFullGeodatabase

esriRowsType
0 - esriRowsTypeNone
1 - esriRowsTypeAll
2 - esriRowsTypeFilter

esriReplicaAccessType
0 - esriReplicaAccessNone
1 - esriReplicaChildReadOnly
2 - esriReplicaParentReadOnly
3 - esriReplicaBothReadWrite
4 - esriReplicaParentOrChildReadOnly

Enumerations

esriDataConverterError
0 - S_DATACONVERTER_OK
513 - E_DATACONVERTER_OPENFEATURECLASSFAILED
514 - E_DATACONVERTER_OPENTABLEFAILED
515 - E_DATACONVERTER_OPENFEATUREDATASETFAILED
516 - E_DATACONVERTER_OPENFEATUREWORKSPACEFAILED
517 - E_DATACONVERTER_CREATEFEATURECLASSFAILED
518 - E_DATACONVERTER_CREATETABLEFAILED
519 - E_DATACONVERTER_WRITEFEATURESFAILED
520 - E_DATACONVERTER_WRITEROWSFAILED
521 - E_DATACONVERTER_UNLOADFAILED
522 - E_DATACONVERTER_OPENCURSORFAILED
523 - E_DATACONVERTER_OPENINSERTCURSORFAILED
524 - E_DATACONVERTER_INSERTCURSORFAILED
525 - E_DATACONVERTER_CANCELLED
526 - E_DATACONVERTER_MATCHINPUTFIELDSETFAILED
527 - E_DATACONVERTER_FLUSHINSERTCURSORFAILED
528 - E_DATACONVERTER_ACQUIRESCHEMALOCKFAILED
529 - E_DATACONVERTER_INVALID_INPUT_DATASET_NAME
530 - E_DATACONVERTER_CANNOT_CREATE_FEATURE_DATASET
531 - E_DATACONVERTER_ERROR_READ_ROWS
532 - E_DATACONVERTER_ERROR_READ_ALL_ROWS

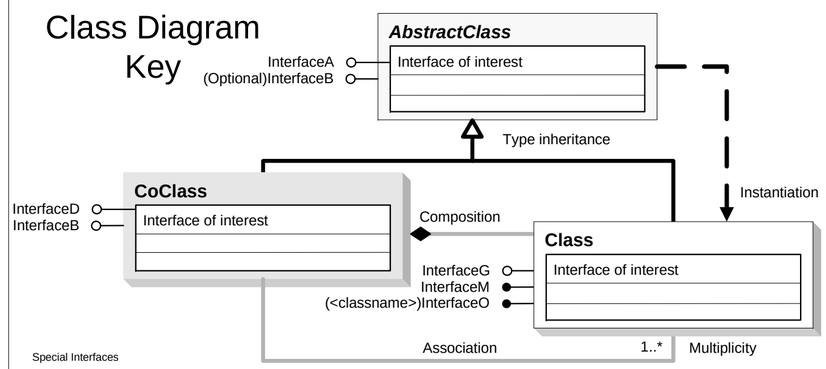
esriFieldNameErrorType
0 - esriNoFieldError
1 - esriSQLReservedWord
2 - esriDuplicatedFieldName
3 - esriInvalidCharacter
4 - esriInvalidFieldNameLength

Interfaces

ISqlKeywordDictionary : IUnknown
- Count: Long
- Name: String

- Add (in reservedWord: String)
- Empty
- FindKeyword (in keyword: String): Boolean
- Remove (in reservedWord: String)
- Reset

Class Diagram Key



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(Optional) represents interfaces that are inherited by some subclasses but not all. The subclasses list the optional interfaces they implement.

(Instance) represents interfaces that are only on specific instances of the class.

(<classname>) indicates the name of the helper class required to support this event interface in Visual Basic.

Inbound Interface
Outbound Interface

Interface key
- Property Get
- Property Put
- Property Get/Put
- Property Put by Reference

- Method

enumeration
firstValue - firstEnumeration
secondValue - secondEnumeration

Structure key *<<Struct>>*

firstMember: Type
secondMember: Type

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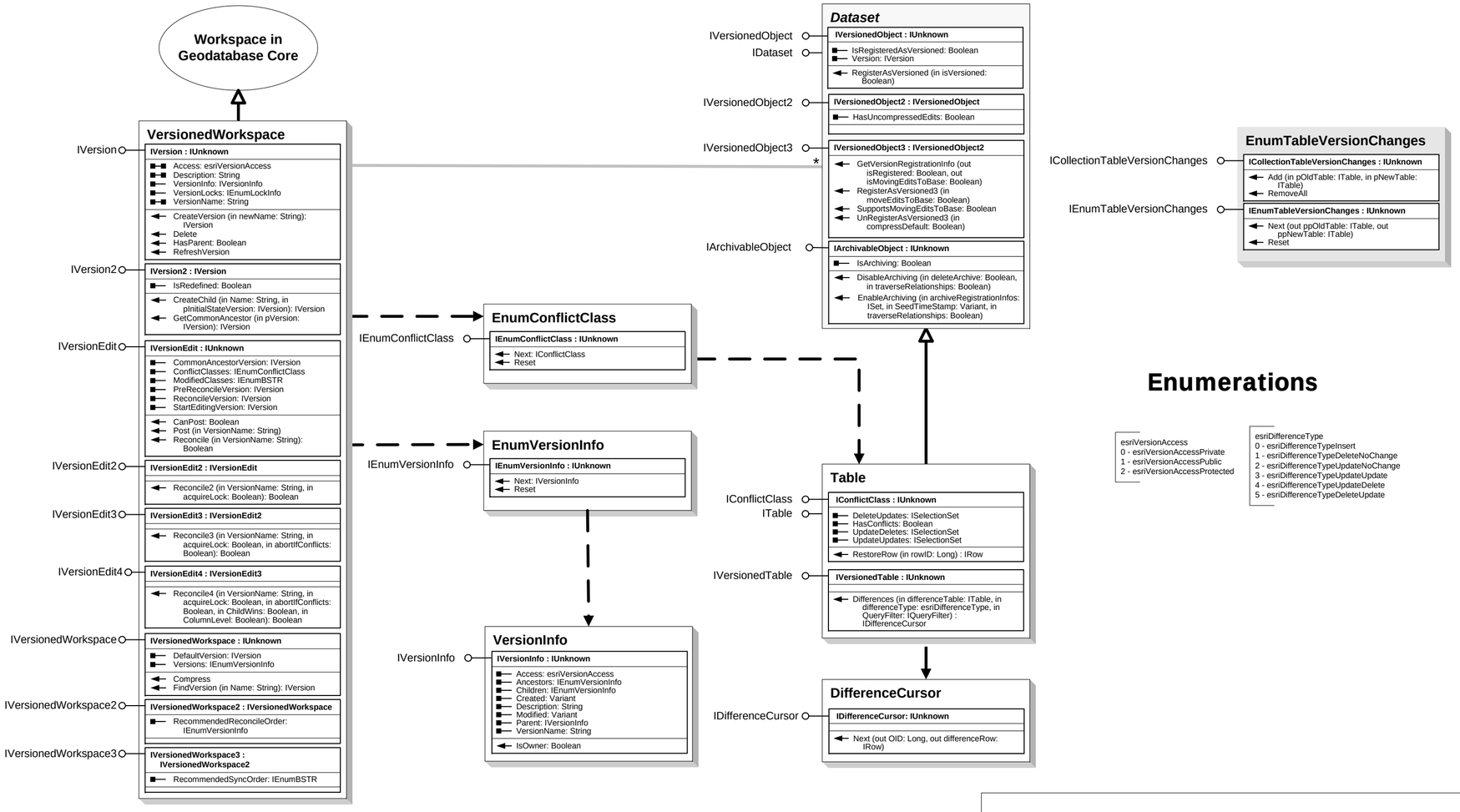
Geodatabase Object Model

Versioning

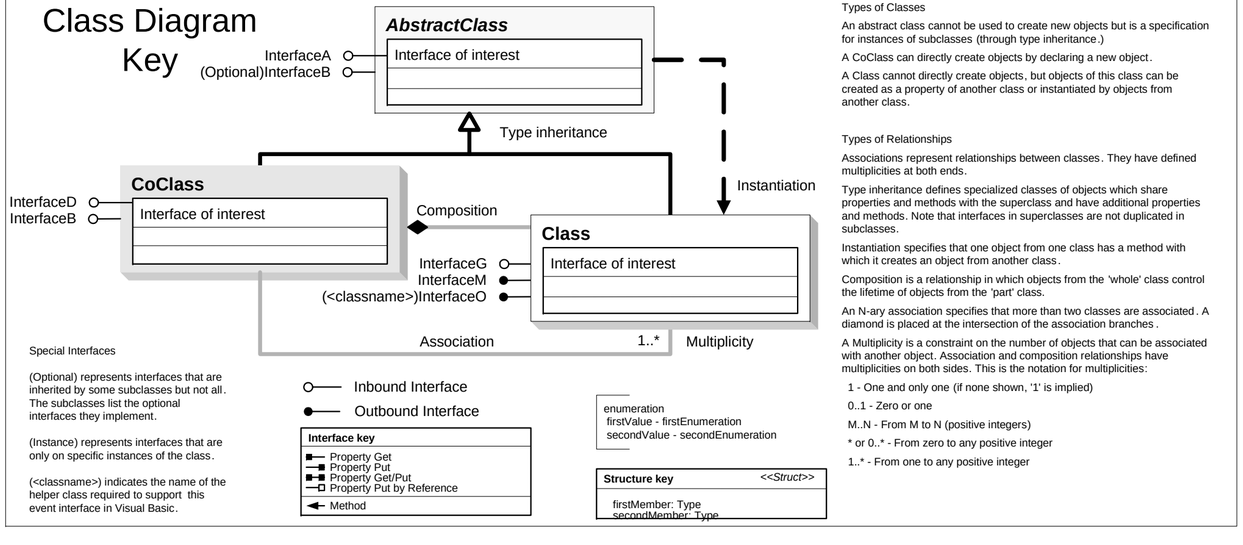
Esri® ArcGIS® 10.3.1



Enumerations

esriVersionAccess
0 - esriVersionAccessPrivate
1 - esriVersionAccessPublic
2 - esriVersionAccessProtected

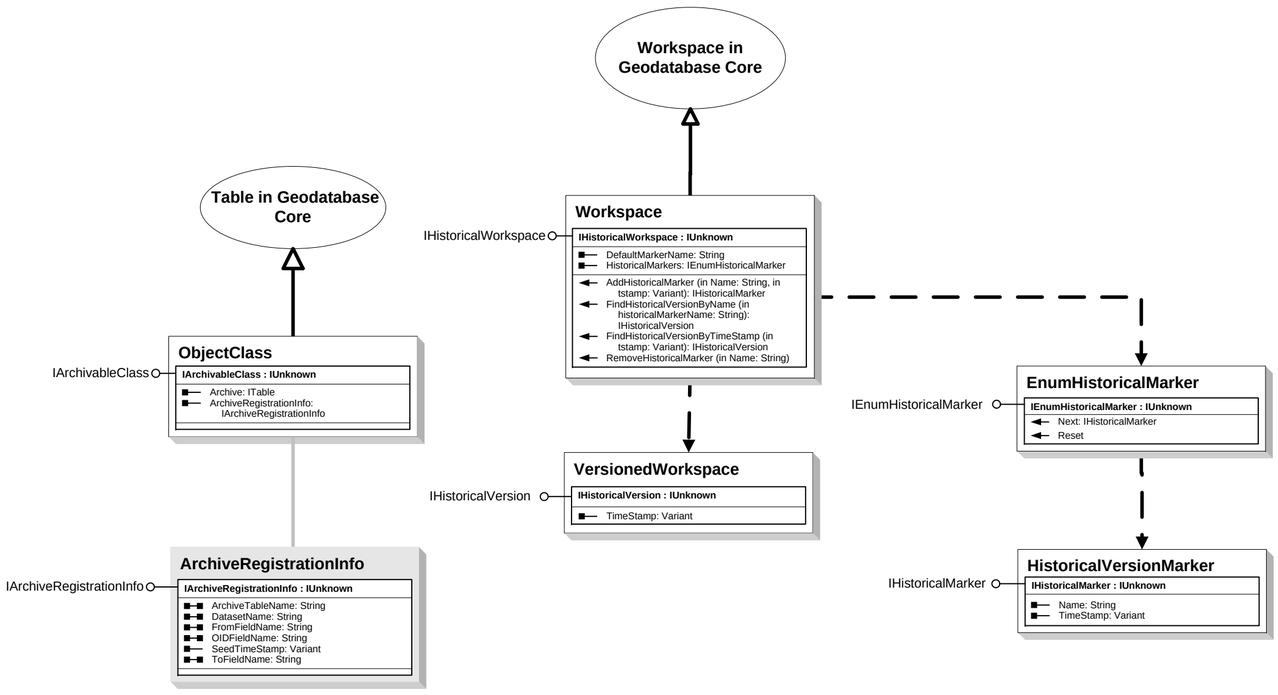
esriDifferenceType
0 - esriDifferenceTypeInsert
1 - esriDifferenceTypeDeleteNoChange
2 - esriDifferenceTypeUpdateNoChange
3 - esriDifferenceTypeUpdateUpdate
4 - esriDifferenceTypeUpdateDelete
5 - esriDifferenceTypeDeleteUpdate

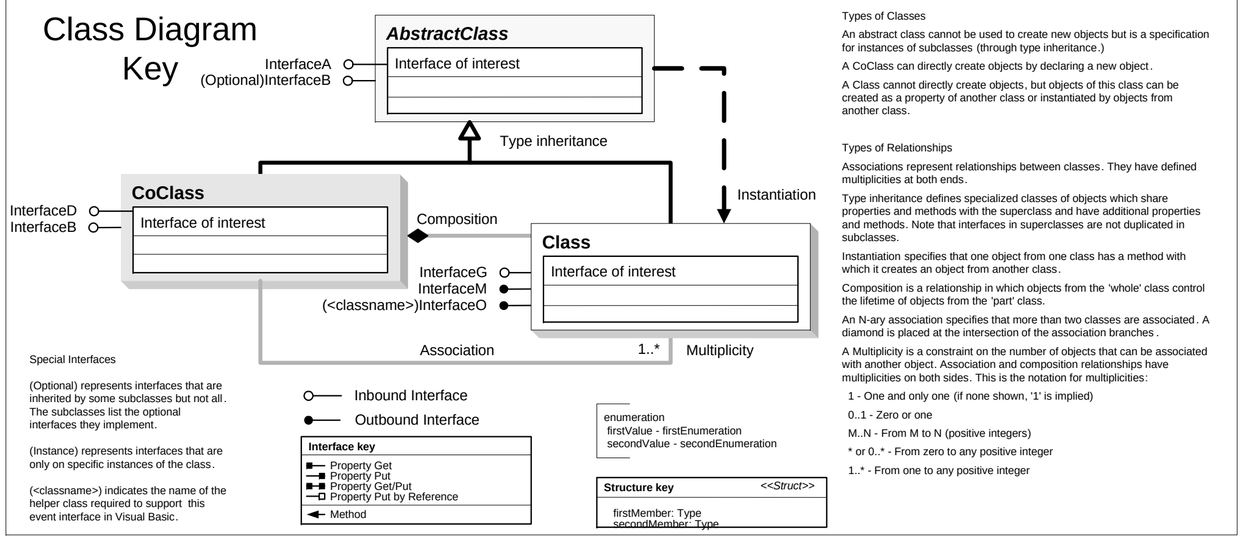


Geodatabase Object Model

Archiving

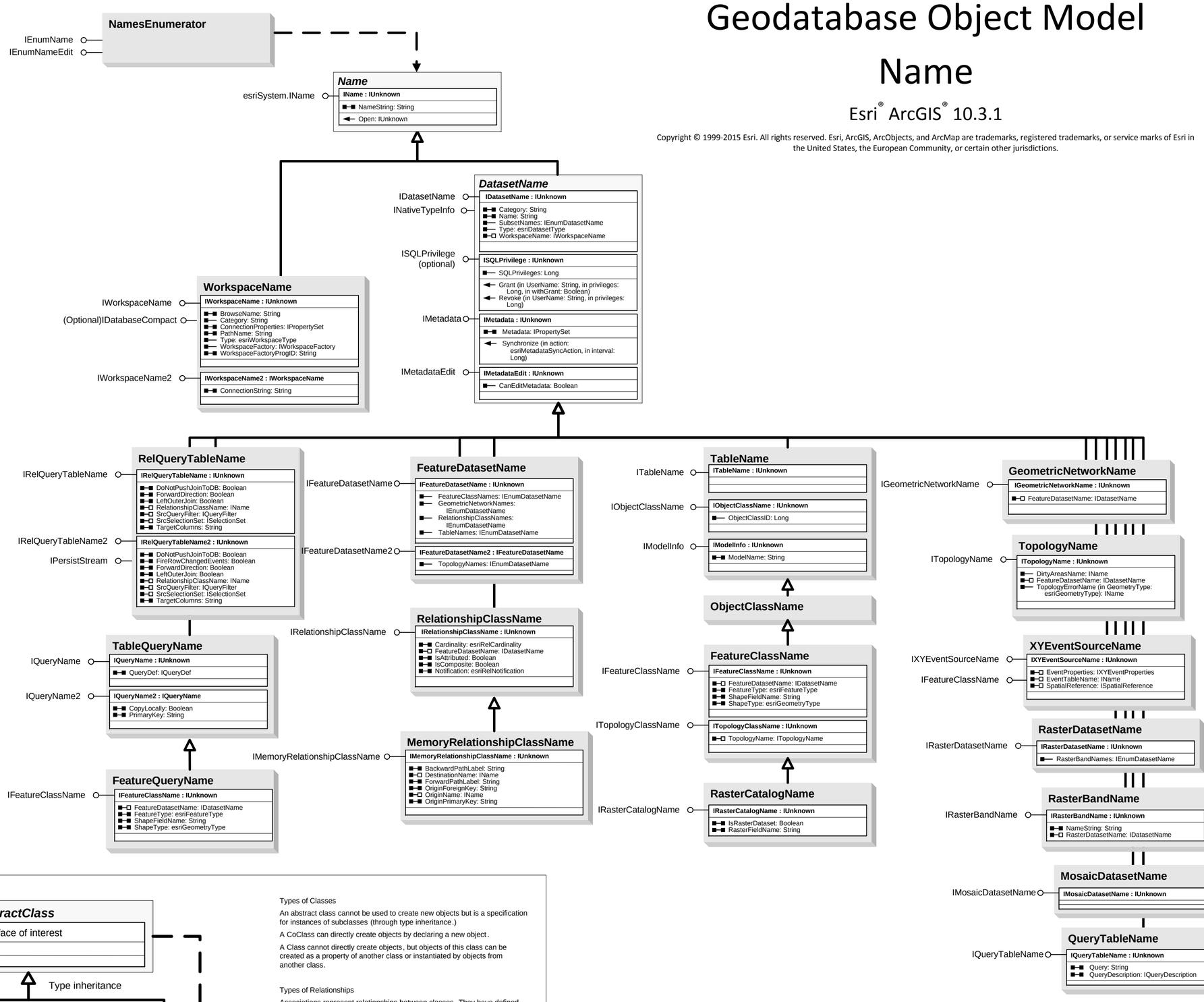
Esri® ArcGIS® 10.3.1



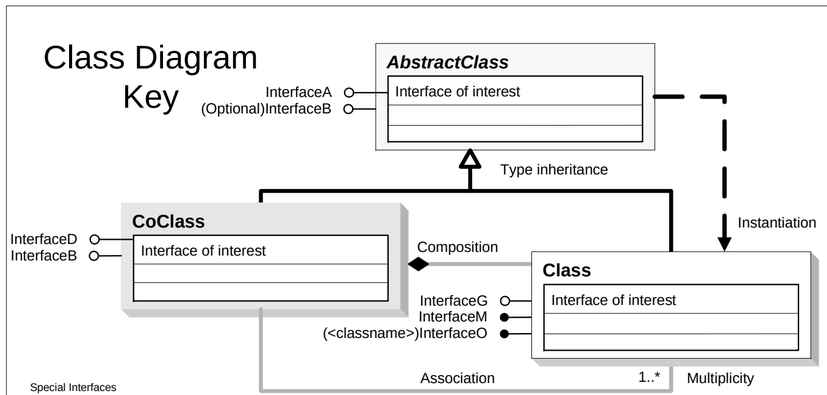


Geodatabase Object Model Name

Esri® ArcGIS® 10.3.1



Class Diagram Key



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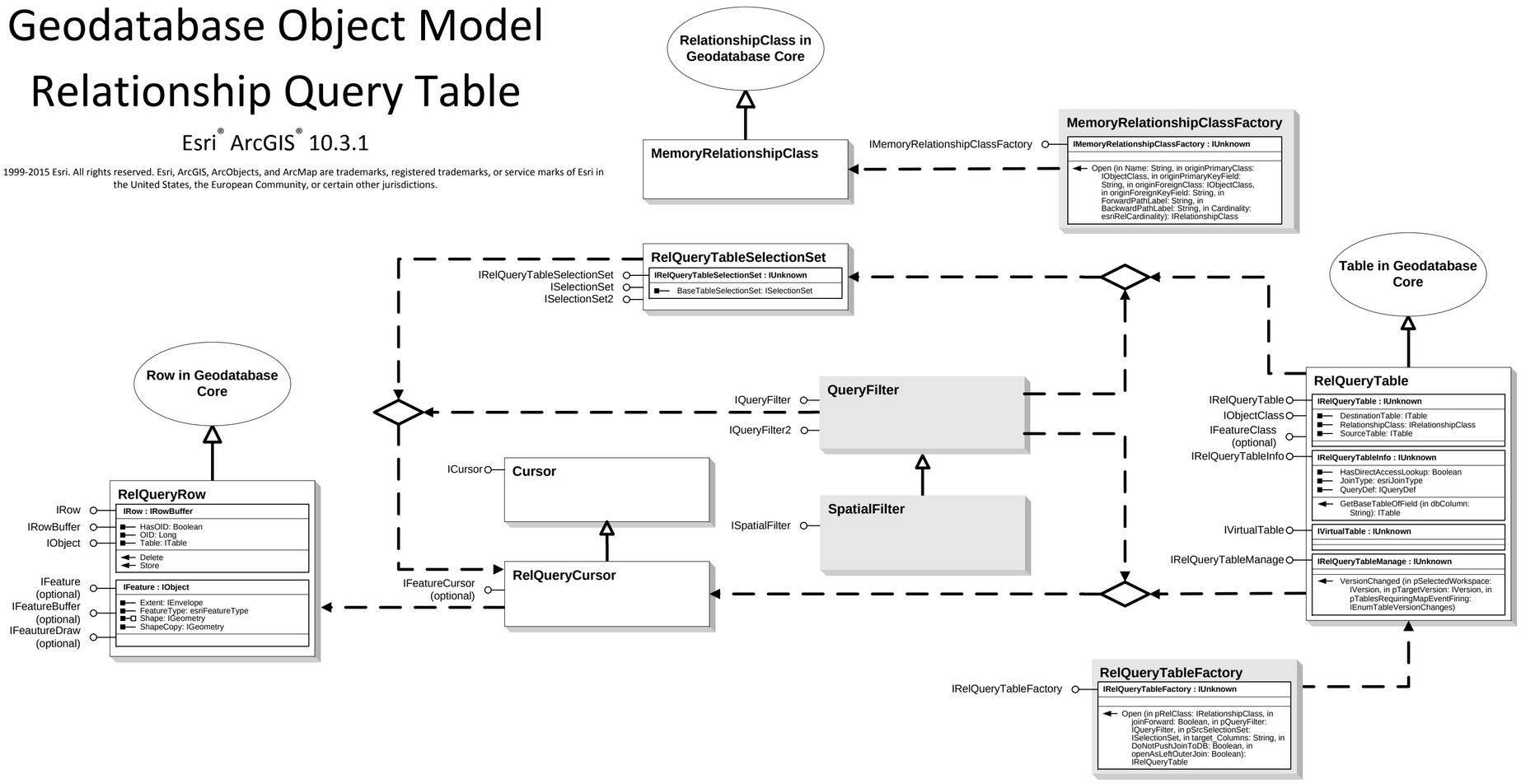
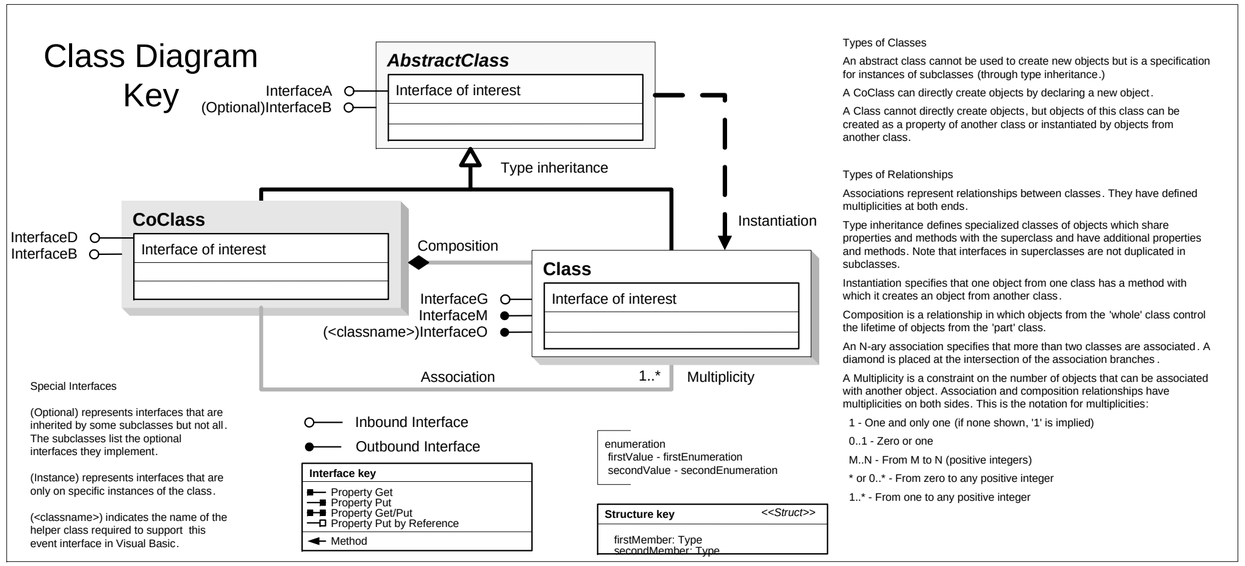
Geodatabase Object Model
Relationship Query Table

Esri® ArcGIS® 10.3.1

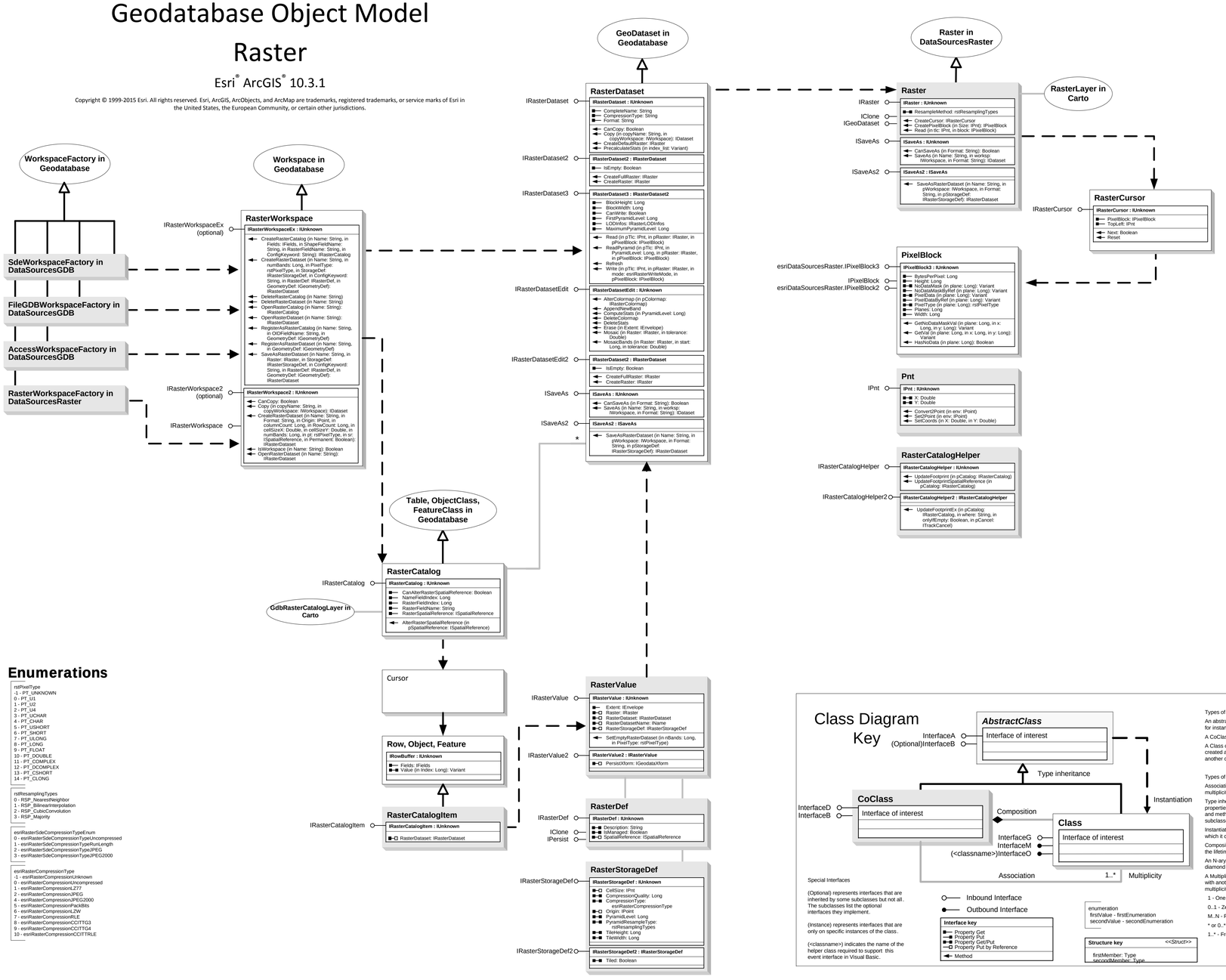




Geodatabase Object Model

Raster

Esri® ArcGIS® 10.3.1



Enumerations

rstPixelType
-1 - PT_UNKNOWN
0 - PT_U1
1 - PT_U2
2 - PT_U4
3 - PT_UCHAR
4 - PT_CHAR
5 - PT_USHORT
6 - PT_SHORT
7 - PT_ULONG
8 - PT_LONG
9 - PT_FLOAT
10 - PT_DOUBLE
11 - PT_COMPLEX
12 - PT_DCOMPLEX
13 - PT_CSHORT
14 - PT_CLONG

rstResamplingTypes
0 - RSP_NearestNeighbor
1 - RSP_BilinearInterpolation
2 - RSP_CubicConvolution
3 - RSP_Majority

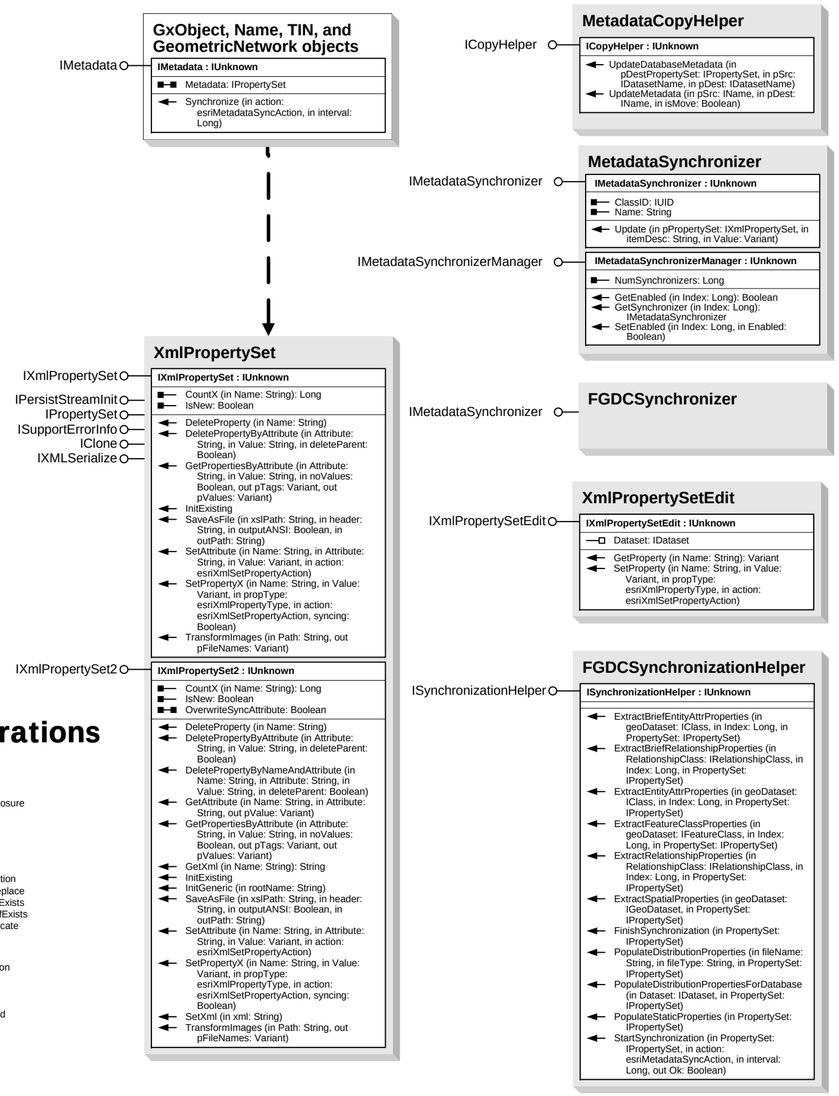
esriRasterSdeCompressionTypeEnum
0 - esriRasterSdeCompressionTypeUncompressed
1 - esriRasterSdeCompressionTypeRunLength
2 - esriRasterSdeCompressionTypeJPEG
3 - esriRasterSdeCompressionTypeJPEG2000

esriRasterCompressionType
-1 - esriRasterCompressionUnknown
0 - esriRasterCompressionUncompressed
1 - esriRasterCompressionLZ77
2 - esriRasterCompressionJPEG
4 - esriRasterCompressionJPEG2000
5 - esriRasterCompressionPackBits
6 - esriRasterCompressionLZW
7 - esriRasterCompressionRLE
8 - esriRasterCompressionCCITTG3
9 - esriRasterCompressionCCITTG4
10 - esriRasterCompressionCCITTRLE

Geodatabase Object Model

Metadata

Esri® ArcGIS® 10.3.1

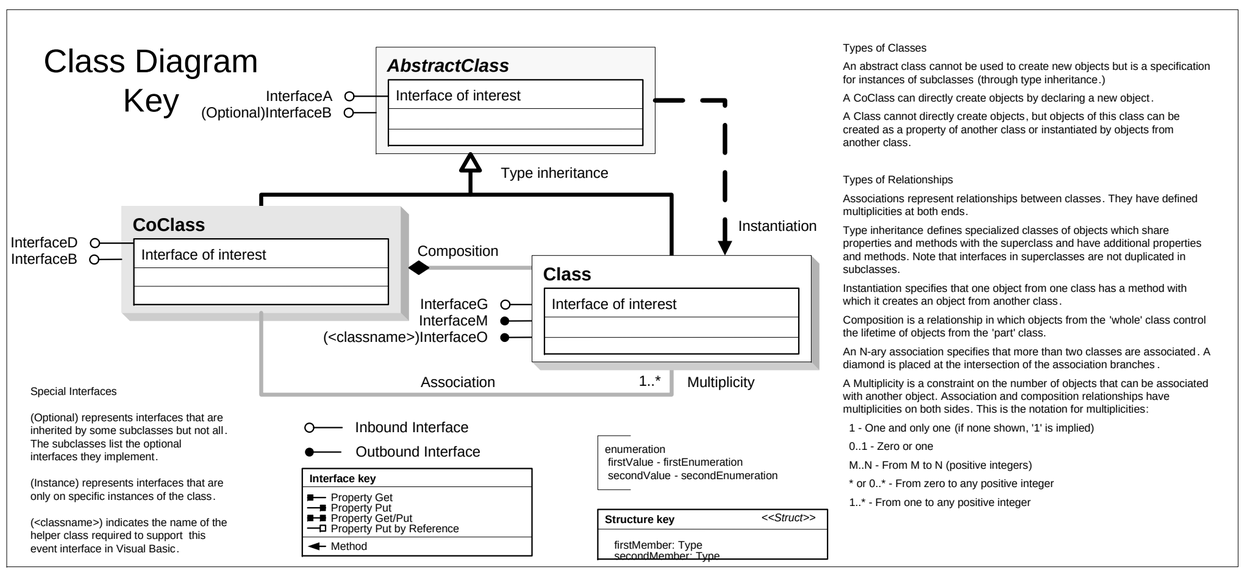


Enumerations

esriXmlPropertyType
0 - esriXPTText
1 - esriXPTBinaryEnclosure
2 - esriXPTLink
3 - esriXPTPicture
4 - esriXPTImage

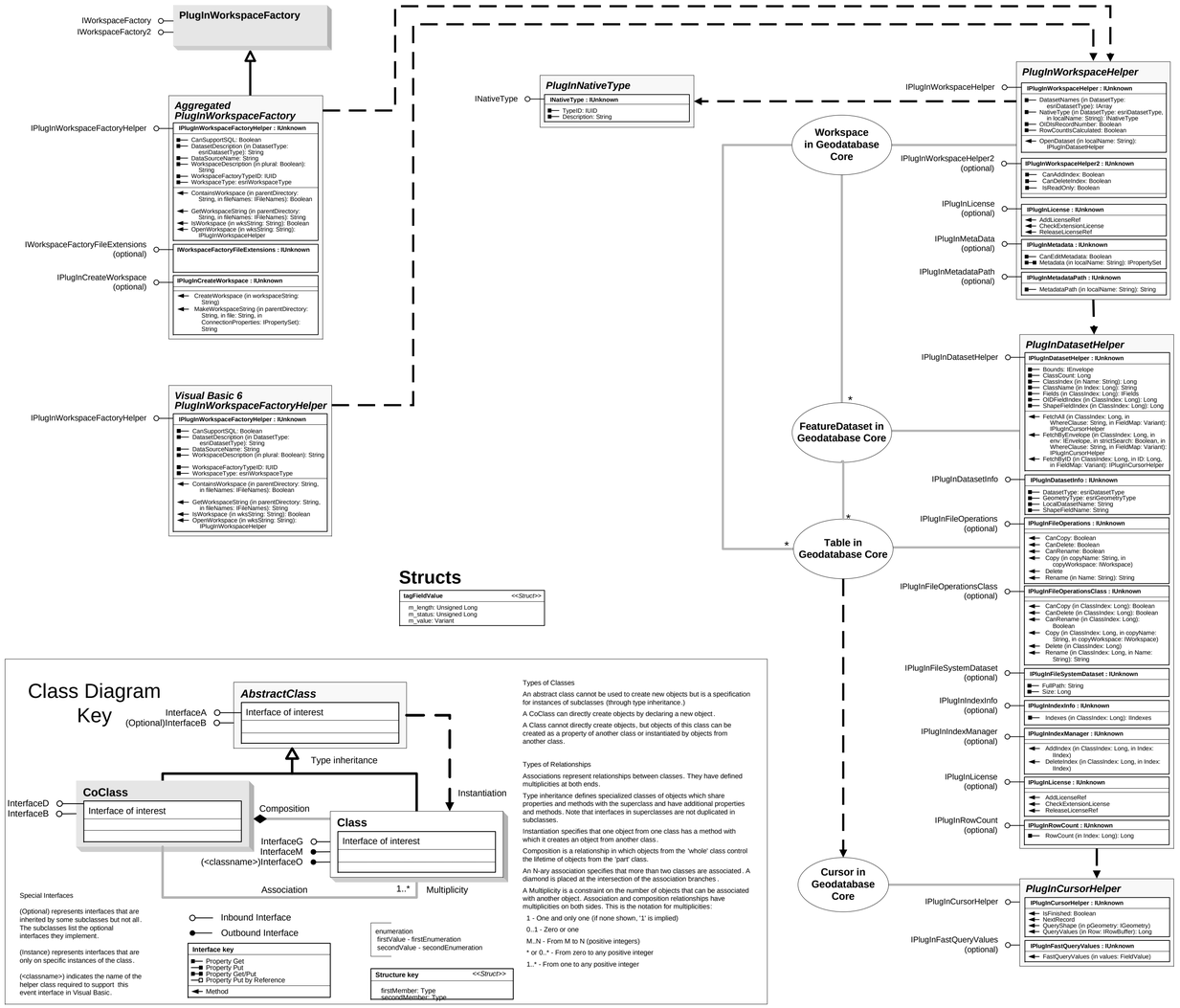
esriXmlSetPropertyAction
0 - esriXSPAAddOrReplace
1 - esriXSPAAddIfNotExists
2 - esriXSPAReplaceIfExists
3 - esriXSPAAddDuplicate

esriMetadataSyncAction
0 - esriMSAAccessed
1 - esriMSAAlways
2 - esriMSACreated
3 - esriMSANotCreated
4 - esriMSAOverwrite



Geodatabase Object Model
Plug-in Data Source

Esri® ArcGIS® 10.3.1



Structs

tagFieldValue <<Struct>>

m_length: Unsigned Long
m_status: Unsigned Long
m_value: Variant

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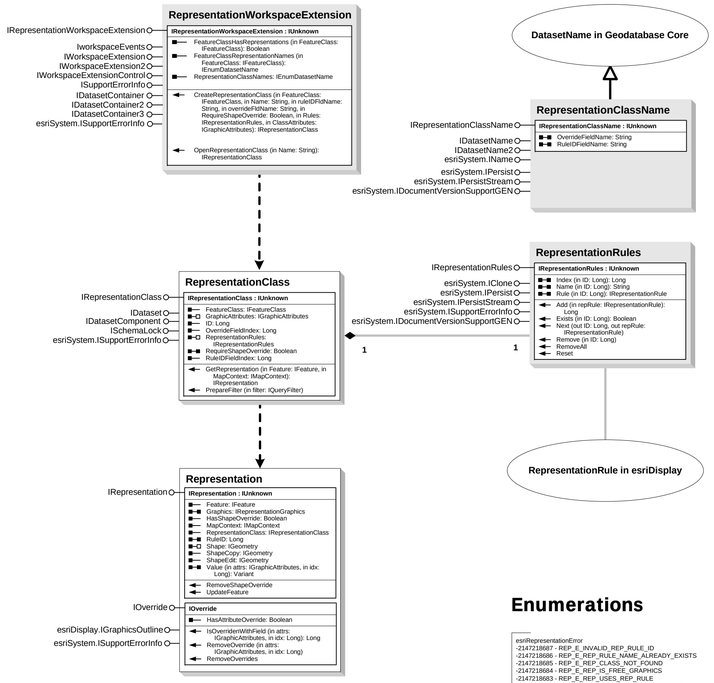
Network Dataset Object Model

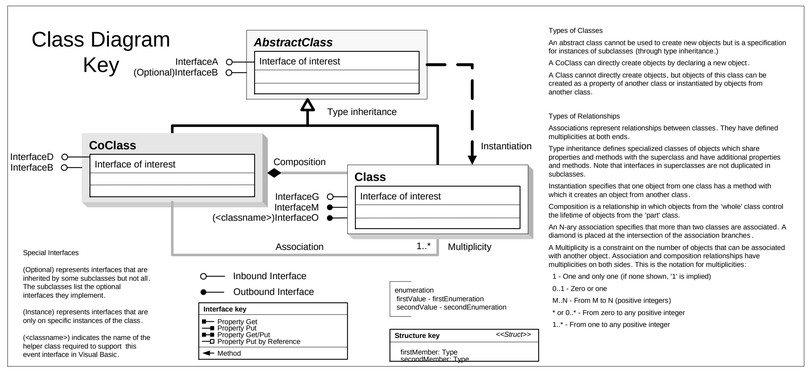
Esri® ArcGIS® 10.3.1

Workspace in Geodatabase Core
GeoDataset in Geodatabase Core
DEGeoDatasetType in GP DataTypes
DEGeoDataset in GP ValueObjects
Dataset in Geodatabase Core
FeatureDatasetName in Geodatabase Name
DatasetName in Geodatabase Name
Workspace
IWorkspaceExtensionManager
IWorkspaceExtensionManager : IUnknown
Extension (in Index: Long): IWorkspaceExtension
ExtensionCount: Long
FindExtension (in gGUID: IUID): IWorkspaceExtension
RegisterExtension (in Name: String, in pGUID: IUID)
UnRegisterExtension (in pGUID: IUID)
IWorkspaceDataElements (optional)
IWorkspaceDataElements : IUnknown
GetDatasetDataElement (in pDatasetSpec: IUnknown, in pBrowseOptions: IDEBrowseOptions): IDataElement
GetWorkspaceDataElement (in pBrowseOptions: IDEBrowseOptions): IDataElement
IWorkspaceDataElements2 (optional)
IWorkspaceDataElements2 : IWorkspaceDataElements
GetNameObject (in DataElement: IDataElement): IName
WorkspaceExtension
IWorkspaceExtension
IWorkspaceExtension : IUnknown
DataDictionaryTableNames: IEnumBSTR
GUID: IUID
Name: String
PrivateDataNames (in dtype: esriDatasetType): IEnumBSTR
IWorkspaceExtension2 (optional)
IWorkspaceExtension2 : IWorkspaceExtension
Workspace: IWorkspace
OwnsDatasetType (in DatasetType: esriDatasetType): Boolean
IDatasetContainer2 (optional)
IDatasetContainer2 : IDatasetContainer
Dataset (in Type: esriDatasetType, in Index: Long): IDataset
DatasetByName (in Type: esriDatasetType, in Name: String): IDataset
DatasetCount (in Type: esriDatasetType): Long
DatasetNames (in Type: esriDatasetType): IEnumDatasetName
Datasets (in Type: esriDatasetType): IEnumDataset
DatasetTypes: IEnumDatasetType
CreateDataset (in DataElement: IDEDataset): IDataset
IDatasetContainer3 (optional)
IDatasetContainer3 : IDatasetContainer2
DatasetByID (in Type: esriDatasetType, in DatasetID: Long): IDataset
IWorkspaceExtensionControl
IWorkspaceExtensionControl : IUnknown
Init (in pWorkspaceHelper: IWorkspaceHelper)
Shutdown
IWorkspaceExtension2
IDatasetContainer2
IDatasetContainer3
NetworkDataset-WorkspaceExtension
FeatureDataset
IFeatureDatasetExtensionContainer
IFeatureDatasetExtensionContainer : IUnknown
Extension (in Index: Long): IFeatureDatasetExtension
ExtensionCount: Long
FindExtension (in Type: esriDatasetType): IFeatureDatasetExtension
FeatureDatasetExtension
IFeatureDatasetExtension
IFeatureDatasetExtension : IUnknown
FeatureDataset: IFeatureDataset
Init (in Dataset: IFeatureDataset)
IDatasetEdit
IDatasetContainer2
IDatasetContainer2 : IDatasetContainer
Dataset (in Type: esriDatasetType, in Index: Long): IDataset
DatasetByName (in Type: esriDatasetType, in Name: String): IDataset
DatasetCount (in Type: esriDatasetType): Long
DatasetNames (in Type: esriDatasetType): IEnumDatasetName
Datasets (in Type: esriDatasetType): IEnumDataset
DatasetTypes: IEnumDatasetType
CreateDataset (in DataElement: IDEDataset): IDataset
IDatasetContainer3
IDatasetContainer3 : IDatasetContainer2
DatasetByID (in Type: esriDatasetType, in DatasetID: Long): IDataset
NetworkDatasetFDExtension
DatasetComponent
IDatasetComponent
IDatasetComponent : IUnknown
DataElement: IDEDataset
Parent: IDataset
IDatasetComponent2
IDatasetComponent2 : IDatasetComponent
ID: Long
NetworkDataset
INetworkDataset
INetworkDataset : IUnknown
Attribute (in Index: Long): INetworkAttribute
AttributeByID (in ID: Long): INetworkAttribute
AttributeByName (in Name: String): INetworkAttribute
AttributeCount: Long
Buildable: Boolean
NetworkType: esriNetworkDatasetType
Source (in Index: Long): INetworkSource
SourceByID (in ID: Long): INetworkSource
SourceByName (in Name: String): INetworkSource
SourceCount: Long
State: esriNetworkDatasetState
SupportsTurns: Boolean
INetworkDataset2
INetworkDataset2 : INetworkDataset
DirtyArea (in Location: IPolygon): IPolygon
INetworkQuery
INetworkQuery : IUnknown
ComplexTurnCount: Long
EdgesByPosition (in SourceID: Long, in OID: Long, in Position: Double, in includeRelatedSDCHyperEdges: Boolean): IEnumNetworkElement
EdgesBySegment (in SourceID: Long, in OID: Long, in FromPosition: Double, in toPosition: Double): IEnumNetworkElement
ElementCount (in ElementType: esriNetworkElementType): Long
Elements (in ElementType: esriNetworkElementType): IEnumNetworkElement
ElementsByOID (in SourceID: Long, in OID: Long): IEnumNetworkElement
ElementsByOIDs (in SourceID: Long, in oids: ILongArray): IEnumNetworkElement
ElementsForSource (in SourceID: Long): IEnumNetworkElement
MaxElID (in ElementType: esriNetworkElementType): Long
MaxValence: Long
CreateQI(): IQueryInterface
CreateForwardStar: INetworkForwardStar
CreateForwardStarAdjacencies: INetworkForwardStarAdjacencies
CreateNetworkElement (in ElementType: esriNetworkElementType): INetworkElement
PopulateIDCache (in SourceID: Long)
QueryEdge (in EID: Long, in Direction: esriNetworkEdgeDirection, in Edge: INetworkEdge)
QueryJunction (in EID: Long, in Junction: INetworkJunction)
QueryTurn (in EID: Long, in Turn: INetworkTurn)
INetworkQuery2
INetworkQuery2 : INetworkQuery
TimeZoneID (in networkElement: INetworkElement): Long
ConvertLocalTimeToUTCTime (in localTimeZoneID: Long, in localTime: DATE): DATE
ConvertUTCTimeToLocalTime (in localTimeZoneID: Long, in utcTime: DATE): DATE
INetworkQuery3
INetworkQuery3 : INetworkQuery2
RefreshDynamicTrafficData (in utcTime: DATE, in utcTimeUsage: esriNetworkTimeUsage, out pDynamicTrafficUTCStartTime: DATE, out pDynamicTrafficUTCEndTime: DATE)
INetworkBuild (optional)
INetworkBuild : IUnknown
AddAttribute (in Attribute: INetworkAttribute)
AddSource (in Source: INetworkSource)
BuildNetwork (in areaToBuild: IEnvelope)
DeleteAttribute (in Attribute: INetworkAttribute)
DeleteSource (in Source: INetworkSource)
UpdateSchema (in DataElement: IDENetworkDataset)
TrafficDataManager
ITrafficDataManager
ITrafficDataManager : IUnknown
ConvertTMCToKey (in tmcCode: String): Unsigned Long
DeleteData (in feedFolderPath: String, in utcCutoffDate: DATE)
Insert (in key: Unsigned Long, in pTimeSliceSpeeds: IDoubleArray)
StartEditing (in feedUTCStartTime: DATE, in estimateKeyCount: Long, in timeSliceCount: Long, in firstTimeSliceUTCStartTime: DATE, in TimeSliceDurationInMinutes: Long, in speedUnits: esriNetworkAttributeUnits, in updateIntervalInMinutes: Long, in feedVersionNumber: Long)
StopEditing (in feedFolderPath: String, in createCompressedFile: Boolean)
TrafficData
ITrafficData
ITrafficData : IUnknown
TimeInterval: Double
TimeIntervalUnits: esriTimeUnits
ITrafficData2
ITrafficData2 : ITrafficData
LengthAttributeName: String
IHistoricalTrafficData
IHistoricalTrafficData : IUnknown
FirstTimeSliceFieldName: String
FirstTimeSliceStartTime: DATE
JoinTableBaseTravelTimeFieldName: String
JoinTableBaseTravelTimeUnits: esriNetworkAttributeUnits
JoinTableName: String
JoinTableProfileIDFieldNames: IStringArray
LastTimeSliceFieldName: String
ProfilesTableName: String
TimeSliceDurationInMinutes: Long
IHistoricalTrafficData2
IHistoricalTrafficData2 : IHistoricalTrafficData
JoinTableBaseSpeedFieldName: String
JoinTableBaseSpeedUnits: esriNetworkAttributeUnits
IDynamicTrafficData
IDynamicTrafficData : IUnknown
DynamicTrafficTableName: String
DynamicTrafficTMCFieldName: String
TrafficFeedLocation: ITrafficFeedLocation
TrafficFeedLocation
ITrafficFeedLocation
ITrafficFeedLocation : IUnknown
TrafficFeedDirectory
ITrafficFeedDirectory
ITrafficFeedDirectory : IUnknown
TrafficDirectory: String
TrafficFeedGPService
ITrafficFeedGPService
ITrafficFeedGPService : IUnknown
ConnectionProperties: IPropertySet
ServiceName: String
TaskName: String
NetworkForwardStar
INetworkForwardStarEx
INetworkForwardStarEx : IUnknown
BacktrackPolicy: esriNetworkForwardStarBacktrack
HierarchyAttribute: INetworkAttribute
IsForwardTraversal: Boolean
IsRestricted (in Element: INetworkElement): Boolean
HasTraversableHierarchyValue: Long
NetworkDataset: INetworkDataset
RestrictionAttribute (in Index: Long): INetworkAttribute
RestrictionAttributeCount: Long
AddEdgeRestriction (in Edge: INetworkEdge, in fromPosition: Double, in toPosition: Double)
AddJunctionRestriction (in Junction: INetworkJunction)
AddRestrictionAttribute (in Attribute: INetworkAttribute)
AddTurnRestriction (in Turn: INetworkTurn)
AdjustEdgeRestrictionValue (in Edge: INetworkEdge, in fromPosition: Double, in toPosition: Double, in Attribute: INetworkAttribute, in adjustmentType: esriNetworkAttributeAdjustmentType, in Value: Variant)
AdjustJunctionAttributeValue (in Junction: INetworkJunction, in Attribute: INetworkAttribute, in adjustmentType: esriNetworkAttributeAdjustmentType, in Value: Variant)
AdjustTurnAttributeValue (in Turn: INetworkTurn, in Attribute: INetworkAttribute, in adjustmentType: esriNetworkAttributeAdjustmentType, in Value: Variant)
QueryAdjacencies (in aJunction: INetworkJunction, in fromEdge: INetworkEdge, in lastEdgeInExitEdge: INetworkEdge, in adjacencies: INetworkForwardStarAdjacencies)
QueryAttributeCutoffRange (in Edge: INetworkEdge, in Attribute: INetworkAttribute, in queryPosition: Double, in cutoffValue: Variant, out fromPosition: Double, out toPosition: Double)
QueryEdge (in EID: Long, in Direction: esriNetworkEdgeDirection, in Edge: INetworkEdge)
QueryJunction (in EID: Long, in Junction: INetworkJunction)
QueryTraversableRange (in Edge: INetworkEdge, in queryPosition: Double, out fromPosition: Double, out toPosition: Double, out isFromPositionAccessible: Boolean, out isToPositionAccessible: Boolean)
QueryTurn (in EID: Long, in Turn: INetworkTurn)
RemoveAttributeValueAdjustments
RemoveElementRestrictions
RemoveRestrictionAttributes
EnumNetworkElement
IEnumNetworkElement
IEnumNetworkElement : IUnknown
Next: INetworkElement
Reset
DENetworkDatasetType
IDENetworkDatasetType
IGxFilterInfo
IDENetworkDatasetType : IUnknown
DENetworkDataset
IDENetworkDataset
IXMLSerialize
IPersistStream
IGPDescribe
IDENetworkDataset : IUnknown
Attributes: IArray
Buildable: Boolean
ConfigurationKeyword: String
Directions: INetworkDirections
HierarchyClusterAttribute: INetworkAttribute
HierarchyLevelCount: Long
MaxValueForHierarchy (in level: Long): Long
NetworkType: esriNetworkDatasetType
Properties: IPropertySet
Sources: IArray
SupportsTurns: Boolean
UserData: IPropertySet
IDENetworkDataset2
IDENetworkDataset2 : IDENetworkDataset
ElevationModel: esriNetworkElevationModel
TimeZoneAttributeName: String
TimeZoneTableName: String
TrafficData: ITrafficData
NetworkSource
INetworkSource
IGPDescribe
INetworkSource : IUnknown
ElementType: esriNetworkElementType
ID: Long
Name: String
NetworkSourceDirections: INetworkSourceDirections
Properties: IPropertySet
SourceType: esriNetworkSourceType
UsesGeometricConnectivity: Boolean
NetworkElement
INetworkElement
ISupportErrorInfo
INetworkElement : IDispatch
AttributeValue (in AttributeID: Long): Variant
AttributeValueByName (in AttributeName: String): Variant
EID: Long
ElementType: esriNetworkElementType
OID: Long
SourceID: Long
NetworkJunction
INetworkJunction
INetworkJunction : INetworkElement
EdgeCount: Long
TurnCount: Long
QueryEdge (in Index: Long, in leavingJunction: Boolean, in Edge: INetworkEdge): Any
QueryPoint (in point: IPoint): Any
QueryTurn (in Index: Long, in Turn: INetworkTurn): Any
INetworkJunction2
INetworkJunction2 : INetworkJunction
AttributeValueAtTime (in AttributeID: Long, in localTime: DATE, in timeUsage: esriNetworkTimeUsage): Variant
NetworkEdge
INetworkEdge
INetworkEdge : INetworkElement
Direction: esriNetworkEdgeDirection
FromAzimuth: Double
PositionAlongObject (in positionAlongElement: Double): Double
ToAzimuth: Double
TurnCount: Long
TurnParticipationType: esriNetworkTurnParticipationType
QueryEdgesOtherDirection (in Edge: INetworkEdge): Any
QueryJunctions (in FromJunction: INetworkJunction, in ToJunction: INetworkJunction): Any
QueryPositions (out fromPosition: Double, out toPosition: Double): Any
QueryTurn (in Index: Long, in Turn: INetworkTurn): Any
INetworkEdge2
INetworkEdge2 : INetworkEdge
AttributeValueAtTime (in AttributeID: Long, in localTime: DATE, in timeUsage: esriNetworkTimeUsage): Variant
CoveredEdgeCount: Long
HasCoveringHyperedge: Boolean
IsHyperedge: Boolean
PartialEdgeAttributeValue (in fromPosition: Double, in toPosition: Double, in AttributeID: Long): Variant
PartialEdgeAttributeValueAtTime (in fromPosition: Double, in toPosition: Double, in AttributeID: Long, in localTime: DATE, in timeUsage: esriNetworkTimeUsage): Variant
QueryCoveredEdge (in Index: Long, in Edge: INetworkEdge): Any
QueryCoveringHyperedge (in Edge: INetworkEdge, out fromPosition: Double, out toPosition: Double): Any
INetworkTurn
INetworkTurn : INetworkElement
Angle: Double
EdgeCount: Long
TurnType: esriNetworkTurnType
QueryAzimuth (in Junction: INetworkJunction): Any
QueryEdge (in Index: Long, in Edge: INetworkEdge): Any
INetworkTurn2
INetworkTurn2 : INetworkTurn
AttributeValueAtTime (in AttributeID: Long, in localTime: DATE, in timeUsage: esriNetworkTimeUsage): Variant
NetworkDirections
INetworkDirections
INetworkDirections : IUnknown
DefaultOutputLengthUnits: esriNetworkAttributeUnits
LengthAttributeName: String
RoadClassAttributeName: String
TimeAttributeName: String
INetworkDirections2
INetworkDirections2 : INetworkDirections
AttributeMappings: IArray
ISignposts
ISignposts : IUnknown
SignpostFeatureClassName: String
SignpostStreetsTableName: String
DirectionsAttributeMapping
IDirectionsAttributeMapping
IDirectionsAttributeMapping : IUnknown
AttributeName: String
KeyName: String
NetworkSourceDirections
INetworkSourceDirections
INetworkSourceDirections : IUnknown
AdminAreaFieldName: String
Shields: IShields
StreetNameFields: IArray
INetworkSourceDirections2
INetworkSourceDirections2 : INetworkSourceDirections
FieldMappings: IArray
INetworkSourceDirections3
INetworkSourceDirections3 : INetworkSourceDirections2
LandmarkEventSources: IArray
LandmarkManeuverSources: IArray
DirectionsLandmarkSource
IDirectionsLandmarkSource
IDirectionsLandmarkSource : IUnknown
FeatureClassName: String
LabelFieldName: String
LevelFieldName: String
SearchTolerance: Double
SearchToleranceUnits: esriUnits
UseSpatialSearch: Boolean
StreetNameFields
IStreetNameFields
IStreetNameFields : IUnknown
PrefixDirectionFieldName: String
PrefixTypeFieldName: String
Priority: Long
StreetNameFieldName: String
SuffixDirectionFieldName: String
SuffixTypeFieldName: String
IStreetNameFields2
IStreetNameFields2 : IStreetNameFields
FullNameFieldName: String
HighwayDirectionFieldName: String
LanguageFieldName: String
DirectionsFieldMapping
IDirectionsFieldMapping
IDirectionsFieldMapping : IUnknown
FieldName (in Direction: esriNetworkEdgeDirection): String
KeyName: String
EdgeFeatureSource
IEdgeFeatureSource
IEdgeFeatureSource : IUnknown
ClassConnectivityGroup: Long
ClassConnectivityPolicy: esriNetworkEdgeConnectivityPolicy
FromElevationFieldName: String
SubtypeConnectivityGroup (in SubtypeCode: Long): Long
SubtypeConnectivityPolicy (in SubtypeCode: Long): esriNetworkEdgeConnectivityPolicy
ToElevationFieldName: String
UsesSubtypes: Boolean
TurnFeatureSource
ITurnFeatureSource
ITurnFeatureSource : IUnknown
SystemJunctionSource
ISystemJunctionSource
ISystemJunctionSource : IUnknown
ElevationFieldName: String
JunctionFeatureSource
IJunctionFeatureSource
IJunctionFeatureSource : IUnknown
ClassConnectivityGroups: ILongArray
ClassConnectivityPolicy: esriNetworkJunctionConnectivityPolicy
ElevationFieldName: String
SubtypeConnectivityGroups (in SubtypeCode: Long): ILongArray
SubtypeConnectivityPolicy (in SubtypeCode: Long): esriNetworkJunctionConnectivityPolicy
UseSubtypes: Boolean
AddClassConnectivityGroup (in group: Long)
AddSubtypeConnectivityGroup (in SubtypeCode: Long, in group: Long)
RemoveAllClassConnectivityGroups
RemoveAllSubtypeConnectivityGroups (in SubtypeCode: Long)
NetworkForwardStar-Adjacencies
INetworkForwardStarAdjacencies
INetworkForwardStarAdjacencies : IUnknown
Count: Long
HasTurn (in Index: Long): Boolean
HasTurnRestriction: Boolean
QueryAdjacency (in Junction: INetworkJunction)
QueryEdge (in Index: Long, in adjacentEdge: INetworkEdge, out fromPosition: Double, out toPosition: Double)
QueryTuJunction (in Index: Long, in adjacentJunction: INetworkJunction, out IsFiltered: Boolean)
QueryTurn (in Index: Long, in adjacentTurn: INetworkTurn)
NetworkScriptEvaluator-Functions
INetworkScriptEvaluatorFunctions
INetworkScriptEvaluatorFunctions : IDispatch
ParameterValueByName (in parameterName: String): Variant
NetworkGlobalTurnDelay-Category
INetworkGlobalTurnDelayCategory
INetworkGlobalTurnDelayCategory : IUnknown
AngleCategory: esriNetworkTurnAngleCategory
CrossRoadCategory: esriNetworkRoadCategory
FromRoadCategory: esriNetworkRoadCategory
Seconds: Double
ToRoadCategory: esriNetworkRoadCategory
Initialize (in Seconds: Double, in AngleCategory: esriNetworkTurnAngleCategory, in FromRoadCategory: esriNetworkRoadCategory, in ToRoadCategory: esriNetworkRoadCategory, in CrossRoadCategory: esriNetworkRoadCategory)
NetworkAttribute
INetworkAttribute
INetworkAttribute : IUnknown
DataType: esriNetworkAttributeDataType
ID: Long
Name: String
Units: esriNetworkAttributeUnits
UsageType: esriNetworkAttributeUsageType
INetworkAttribute2
INetworkAttribute2 : INetworkAttribute
Parameters: IArray
UseByDefault: Boolean
Refresh
INetworkAttribute3
INetworkAttribute3 : INetworkAttribute2
IsTimeAware (ElementType: esriNetworkElementType): Boolean
EvaluatedNetworkAttribute
IEvaluatedNetworkAttribute
IEvaluatedNetworkAttribute : INetworkAttribute
DefaultEvaluator (in ElementType: esriNetworkElementType): INetworkEvaluator
Evaluator (in NetworkSource: INetworkSource, in Direction: esriNetworkEdgeDirection): INetworkEvaluator
IEvaluatedNetworkAttribute2
IEvaluatedNetworkAttribute2 : IEvaluatedNetworkAttribute
DENetworkDataset: IDENetworkDataset
Shields
IShields
IShields : IUnknown
CombinedFieldName: String
NumberFieldName: String
ShieldCount: Long
ShieldDescription (in Index: Long): String
ShieldType (in Index: Long): String
TypeFieldName: String
UseCombinedField: Boolean
AddShield (in Type: String, in Description: String)
DeleteShield (in Index: Long)
NetworkAttributeParameter
INetworkAttributeParameter
INetworkAttributeParameter : INetworkAttributeParameter
DefaultValue: Variant
Name: String
Value: Variant
VarType: Long
INetworkAttributeParameter2
INetworkAttributeParameter2 : INetworkAttributeParameter
ParameterUsageType: esriNetworkAttributeParameterUsageType
NetworkEvaluator
INetworkEvaluator
IGPDescribe
INetworkEvaluator2
INetworkEvaluatorSetup
INetworkEvaluator : IUnknown
CacheAttribute: Boolean
DisplayName: String
Name: String
INetworkEvaluator2 : INetworkEvaluator
RequiredFieldNames: IStringArray
Refresh
INetworkEvaluatorSetup : IUnknown
CLSID: IUID
Data: IPropertySet
DataHasEdits: Boolean
Initialize (in NetworkDataset: INetworkDataset, in DataElement: IDENetworkDataset, in Source: INetworkSource, in Attribute: IEvaluatedNetworkAttribute)
QueryValue (in Element: INetworkElement, in Row: IRow): Variant
SupportsDefault (in ElementType: esriNetworkElementType, in Attribute: IEvaluatedNetworkAttribute): Boolean
SupportsSource (in Source: INetworkSource, in Attribute: IEvaluatedNetworkAttribute): Boolean
ValidateDefault (in ElementType: esriNetworkElementType, in Attribute: IEvaluatedNetworkAttribute, in ErrorCode: Long, in ErrorDescription: String, in errorAppendInfo: String): Boolean
ValidateSource (in datasetContainer: IDatasetContainer2, in NetworkSource: INetworkSource, in Attribute: IEvaluatedNetworkAttribute, in ErrorCode: Long, in ErrorDescription: String, in errorAppendInfo: String): Boolean
INetworkConstantEvaluator
INetworkConstantEvaluator
INetworkConstantEvaluator : IUnknown
ConstantValue: Variant
NetworkScriptEvaluator
INetworkScriptEvaluator
INetworkScriptEvaluator : IUnknown
GetExpression (in Expression: String, in preLogic: String)
SetExpression (in Expression: String, in preLogic: String)
INetworkScriptEvaluator2
INetworkScriptEvaluator2 : INetworkScriptEvaluator
GetLanguage (in language: String)
SetLanguage (in language: String)
NetworkFieldEvaluator
INetworkFieldEvaluator
INetworkFieldEvaluator : IUnknown
GetExpression (in Expression: String, in preLogic: String)
SetExpression (in Expression: String, in preLogic: String)
INetworkFieldEvaluator2
INetworkFieldEvaluator2 : INetworkFieldEvaluator
GetLanguage (in language: String)
SetLanguage (in language: String)
NetworkFunctionEvaluator
INetworkFunctionEvaluator
INetworkFunctionEvaluator : IUnknown
FirstArgument: Variant
Operator: String
SecondArgument: Variant
GetOperators (in returnDataType: esriNetworkAttributeDataType): IEnumBSTR
NetworkGlobalTurnDelay-Evaluator
INetworkGlobalTurnDelayEvaluator
INetworkGlobalTurnDelayEvaluator : IUnknown
CustomPrimaryRoadCategoryMaxValue: Long
CustomSecondaryRoadCategoryMaxValue: Long
DefaultSeconds: Double
MaxReverseTurnDeflectionAngle: Long
MaxStraightTurnDeflectionAngle: Long
TurnDelayCategories: IArray
UseCustomRoadCategoryRanges: Boolean
SetCustomRoadCategoryMaxValues (in maxPrimaryRoadValue: Long, in maxSecondaryRoadValue: Long)
NetworkEdgeTrafficEvaluator
IHistoricalTravelTimeEvaluator
IHistoricalTravelTimeEvaluator : IUnknown
TimeNeutralAttributeName: String
WeekdayFallbackAttributeName: String
WeekendFallbackAttributeName: String
ITimeAwareEvaluator
ITimeAwareEvaluator : IUnknown
QueryValueAtTime (in Element: INetworkElement, in localTime: DATE, in timeUsage: esriNetworkTimeUsage): Variant
Enumerations
esriNetworkAttributeAdjustmentType
0 - esriNAATScale
1 - esriNAATAdd
2 - esriNAATReplace
esriNetworkAttributeDataType
0 - esriNADTInteger
1 - esriNADTFloat
2 - esriNADTDouble
3 - esriNADTBoolean
esriNetworkAttributeParameterUsageType
0 - esriNAPUTGeneral
1 - esriNAPUTRestriction
esriNetworkAttributeUnits
0 - esriNAUUnknown
1 - esriNAUInches
3 - esriNAUFeet
4 - esriNAUYards
5 - esriNAUMiles
6 - esriNAUNauticalMiles
7 - esriNAUMillimeters
8 - esriNAUCentimeters
9 - esriNAUMeters
10 - esriNAUKilometers
11 - esriNAUDecimalDegrees
12 - esriNAUDecimeters
20 - esriNAUSeconds
21 - esriNAUMinutes
22 - esriNAUHours
23 - esriNAUDays
30 - esriNAUMilesPerHour
31 - esriNAUKilometersPerHour
esriNetworkAttributeUsageType
0 - esriNAUTCost
1 - esriNAUTDescriptor
2 - esriNAUTRestriction
3 - esriNAUTHierarchy
esriNetworkDatasetState
0 - esriNDSUnbuilt
1 - esriNDSBuilt
2 - esriNDSEmpty
esriNetworkDatasetType
0 - esriNDTUnknown
1 - esriNDTGeodatabase
2 - esriNDTShapefile
3 - esriNDTSDC
esriNetworkEdgeConnectivityPolicy
0 - esriNECPAnyVertex
1 - esriNECPEndVertex
esriNetworkEdgeDirection
0 - esriNEDNone
1 - esriNEDAlongDigitized
2 - esriNEDAgainstDigitized
esriNetworkElementType
1 - esriNETJunction
2 - esriNETEdge
3 - esriNETTurn
esriNetworkElevationModel
0 - esriNEMNone
1 - esriNEMElevationFields
2 - esriNEMZCoordinates
esriNetworkForwardStarBacktrack
0 - esriNFSBNoBacktrack
1 - esriNFSBAllowBacktrack
2 - esriNFSBAllDeadEndsOnly
3 - esriNFSBAtDeadEndsAndIntersections
esriNetworkJunctionConnectivityPolicy
0 - esriNJCPHonor
1 - esriNJCPOverride
esriNetworkRoadCategory
0 - esriNRCNone
1 - esriNRCLocal
2 - esriNRCSecondary
3 - esriNRCPrimary
6 - esriNRCMajor
7 - esriNRCAny
esriNetworkSourceType
0 - esriNSTNetworkSource
1 - esriNSTSystemJunction
2 - esriNSTJunctionFeature
3 - esriNSTEdgeFeature
4 - esriNSTTurnFeature
esriNetworkTimeUsage
1 - esriNTUBeforeTraversal
2 - esriNTUAfterTraversal
esriNetworkTurnAngleCategory
0 - esriNTACStraight
1 - esriNTACReverse
2 - esriNTACRight
3 - esriNTACLeft
esriNetworkTurnParticipationType
0 - esriNTPTNone
1 - esriNTPTInterior
2 - esriNTPTExterior
esriNetworkTurnType
0 - esriNTTImplicit
1 - esriNTTExplicit
esriRoadClass
0 - esriRCUnknown
1 - esriRCStreet
2 - esriRCHighway
3 - esriRCRamp
4 - esriRCFerry
5 - esriRCRoundabout
6 - esriRCMajorRoad
Class Diagram Key
InterfaceA
(Optional)IInterfaceB
AbstractClass
Interface of interest
Type inheritance
CoClass
InterfaceD
InterfaceB
Interface of interest
Composition
Instantiation
Class
InterfaceG
InterfaceM
(<classname>)IInterfaceO
Interface of interest
Association
1..*
Multiplicity
Special Interfaces
(Optional) represents interfaces that are inherited by some subclasses but not all. The subclasses list the optional interfaces they implement.
(Instance) represents interfaces that are only on specific instances of the class.
(<classname>) indicates the name of the helper class required to support this event interface in Visual Basic.
Inbound Interface
Outbound Interface
Interface key
Property Get
Property Put
Property Get/Put
Property Put by Reference
Method
enumeration
firstValue - firstEnumeration
secondValue - secondEnumeration
Structure key
<<Struct>>
firstMember: Type
secondMember: Type
Types of Classes
An abstract class cannot be used to create new objects but is a specification for instances of subclasses (through type inheritance.)
A CoClass can directly create objects by declaring a new object.
A Class cannot directly create objects, but objects of this class can be created as a property of another class or instantiated by objects from another class.
Types of Relationships
Associations represent relationships between classes. They have defined multiplicities at both ends.
Type inheritance defines specialized classes of objects which share properties and methods with the superclass and have additional properties and methods. Note that interfaces in superclasses are not duplicated in subclasses.
Instantiation specifies that one object from one class has a method with which it creates an object from another class.
Composition is a relationship in which objects from the 'whole' class control the lifetime of objects from the 'part' class.
An N-ary association specifies that more than two classes are associated. A diamond is placed at the intersection of the association branches.
A Multiplicity is a constraint on the number of objects that can be associated with another object. Association and composition relationships have multiplicities on both sides. This is the notation for multiplicities:
1 - One and only one (if none shown, '1' is implied)
0..1 - Zero or one
M..N - From M to N (positive integers)
* or 0..* - From zero to any positive integer
1..* - From one to any positive integer

Geodatabase Object Model
Representation Class

Esri® ArcGIS® 10.3.1





Enumerations

esriRepresentationError
-2147218687 - REP_E_INVALID_REP_RULE_ID
-2147218686 - REP_E_REP_RULE_NAME_ALREADY_EXISTS
-2147218685 - REP_E_REP_CLASS_NOT_FOUND
-2147218684 - REP_E_REP_IS_FREE_GRAPHICS
-2147218683 - REP_E_REP_USES_REP_RULE
-2147218682 - REP_E_CANT_ACQUIRE_SCHEMA_LOCK
-2147218681 - REP_E_OBJECT_IS_DELETED
-2147218680 - REP_E_NO_REP_RULES
-2147218679 - REP_E_WORKSPACE_DOESNT_SUPPORT_REP_EXTENSION
-2147218678 - REP_E_FEATURE_TYPE_NOT_SUPPORTED
-2147218677 - REP_E_GEODATABASE_DOESNT_SUPPORT_REPRESENTATIONS
-2147218676 - REP_E_NO_REP_SYSTEM_TABLES
-2147218675 - REP_E_REP_CLASS_NAME_ALREADY_EXISTS
-2147218674 - REP_E_FIELD_NAME_ALREADY_EXISTS
-2147218673 - REP_E_NAME_HAS_INVALID_CHARACTERS
-2147218672 - REP_E_MUST_BE_THE_OWNER
-2147218671 - REP_E_INVALID_LICENSE
-2147218670 - REP_E_COMPRESSED_FEATURE_CLASS

Geodatabase Object Model
Query Classes

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