ArcGIS 3DAnalyst Object Model

Esri® ArcGIS® 10.6

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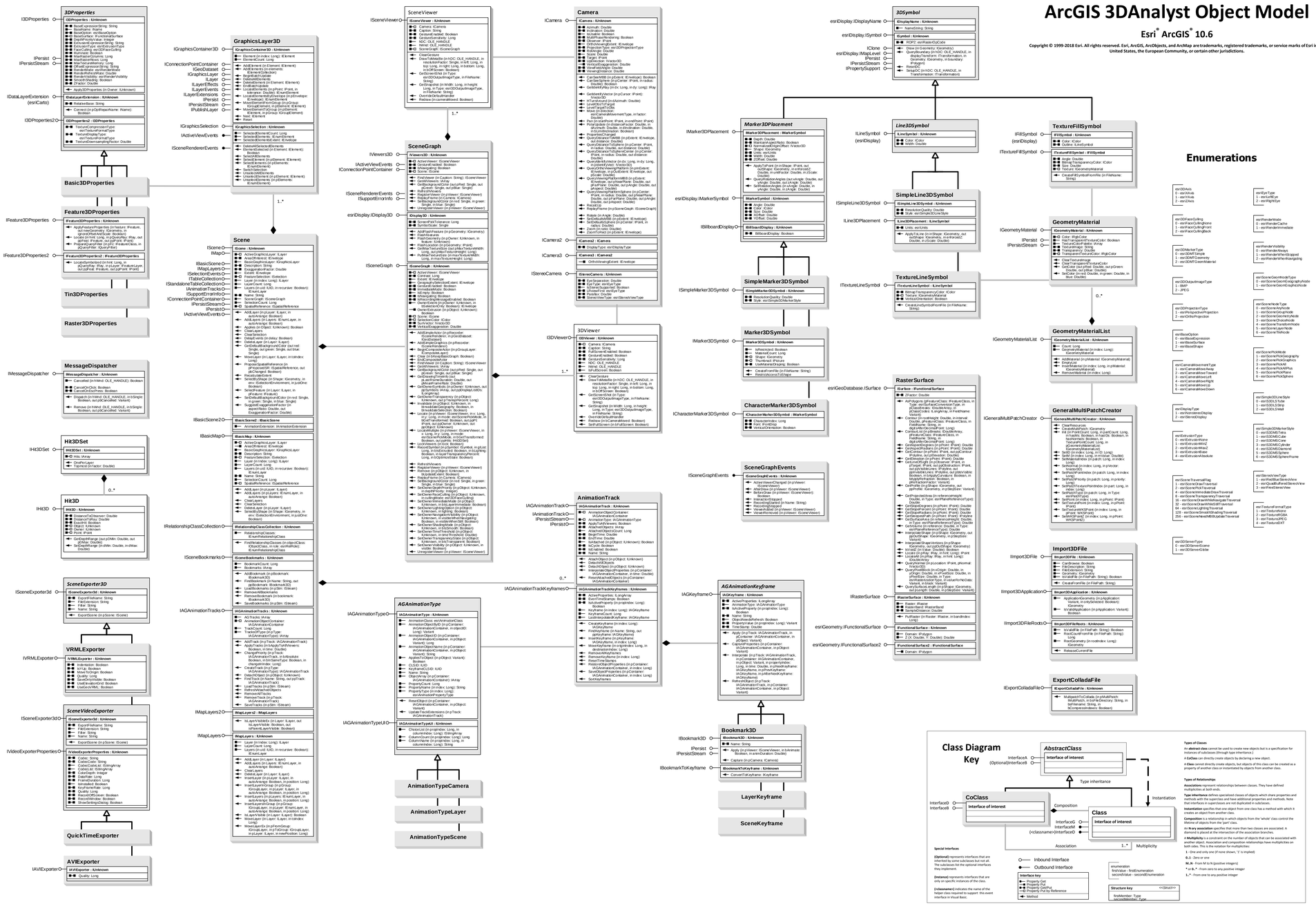

Enumerations

esriDXAxis
0 - esriXAxis
1 - esriYAxis
2 - esriZAxis

esriEyeType
1 - esriRightEye
2 - esriRightEye

esriFaceCulling
0 - esriFaceCullingNone
1 - esriFaceCullingFront
2 - esriFaceCullingBack

esriRenderMode
0 - esriRenderCache
1 - esriRenderImmediate

esriD3DMatrixType
0 - esriD3DMTSimple
1 - esriD3DMTGeometry
2 - esriD3DMTGeomMaterial

esriRenderVisibility
0 - esriRenderAlways
1 - esriRenderWhenEclipsed
2 - esriRenderWhenNavigating

esriD3DOutImageType
1 - BMP
2 - JPEG

esriSceneGeomNodeType
0 - esriSceneGeomGeographyNode
1 - esriSceneGeomGraphicNode

esriD3DProjectionType
1 - esriPerspectiveProjection
2 - esriOrthoProjection

esriSceneNodeType
0 - esriSceneAreaNode
1 - esriSceneCameraNode
2 - esriSceneGeometryNode
3 - esriSceneChoiceNode
4 - esriSceneTransformNode
5 - esriSceneLayerNode
6 - esriSceneTileNode

esriBaseOption
0 - esriBaseExpression
1 - esriBaseSurface
2 - esriBaseShape

esriScenePickMode
1 - esriScenePickGeography
2 - esriScenePickGraphics
3 - esriScenePickAll
4 - esriScenePickAllPlus
5 - esriScenePickPlane
6 - esriScenePickSphere

esriCameraMovementType
1 - esriCameraMoveToward
2 - esriCameraMoveLeft
3 - esriCameraMoveRight
5 - esriCameraMoveUp
6 - esriCameraMoveDown

esriSimpleD3DLineStyle
0 - esriD3DLS.Tube
1 - esriD3DLS.String
2 - esriD3DLS.Wall

esriDisplayType
1 - esriNormalDisplay
2 - esriSceneDisplay

esriSimpleD3DMarkerStyle
0 - esriD3DMS.Fans
1 - esriD3DMS.Cube
2 - esriD3DMS.Cone
3 - esriD3DMS.Cylinder
4 - esriD3DMS.Diamond
5 - esriD3DMS.Sphere
6 - esriD3DMS.SphereFrame

esriExtrusionType
0 - esriExtrusionNone
1 - esriExtrusionMinZ
2 - esriExtrusionMax
3 - esriExtrusionBase
4 - esriExtrusionAbsolute

esriSceneViewType
1 - esriRealStereoView
2 - esriQuadBuffered3DStereoView
3 - esriFreeStereoView

esriSceneTraversalFlag
1 - esriSceneOrderTraversal
2 - esriScenePickTraversal
4 - esriSceneIntermediateDrawTraversal
8 - esriSceneDrawWhileNavigating
16 - esriSceneDrawWhileNavigateTraversal
32 - esriSceneDrawWhileSlitTraversal
64 - esriSceneLightingTraversal
128 - esriSceneSmoothShadingTraversal
256 - esriSceneNeedMBMUpdateTraversal

esriTextureFormatType
1 - esriTextureNone
2 - esriTextureBMP
3 - esriTextureJPEG
4 - esriTextureDXT

esriD3DSceneType
0 - esriD3DSceneScene
1 - esriD3DSceneGlobe

Class Diagram Key

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

Special Interfaces

(Optional) represents interfaces that are optional for implementing classes 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.