Geodatabase Object Model
Network Diagrams

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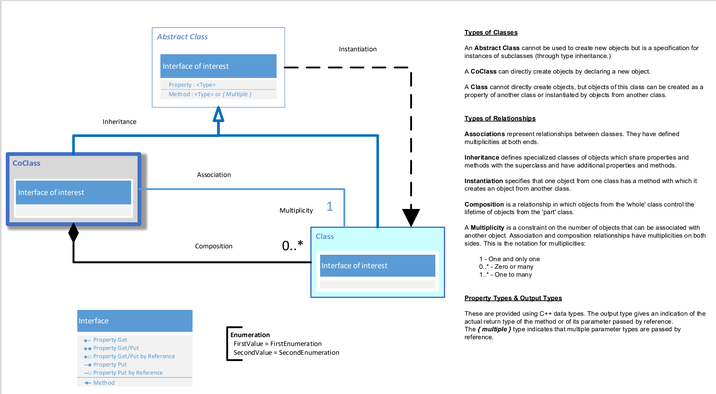


Types of Classes

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.

Inheritance defines specialized classes of objects which share properties and methods with the superclass and have additional properties and methods.

Instantiation specifies that one object from one class has a method with which it creates an object from another class.

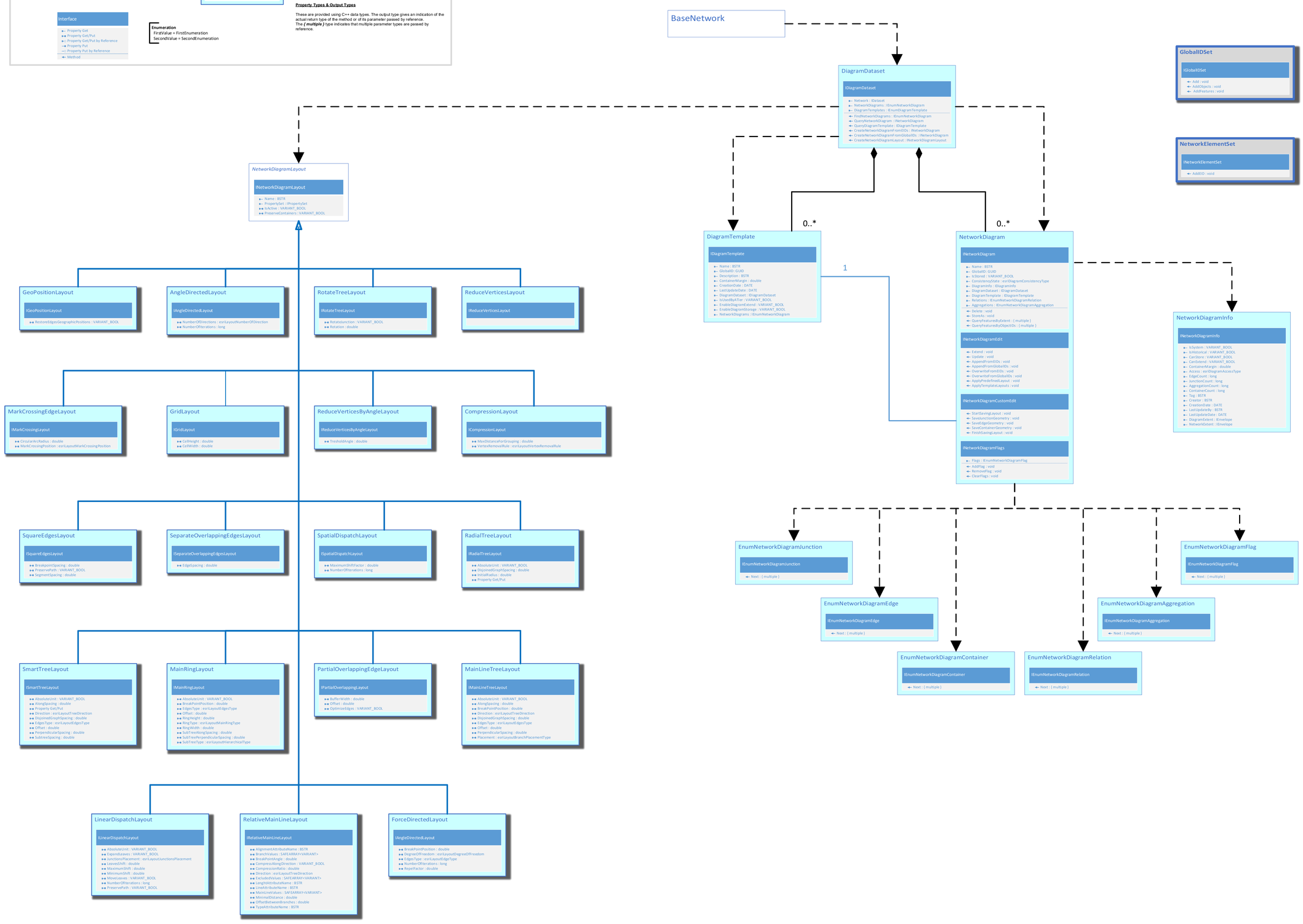
Composition is a relationship in which objects from the 'whole' class control the lifetime of objects from the 'part' class.

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
0..* - Zero or many
1..* - One to many

Property Types & Output Types

These are provided using C++ data types. The output type gives an indication of the actual return type of the method or of its parameter passed by reference.
The ***{ multiple }*** type indicates that multiple parameter types are passed by reference.



Enumerations

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

esriDiagramConsistencyType
esriDiagramIsConsistent = 1
esriDiagramNotConsistentWithTopology = 2
esriDiagramHasDirtyFeatures = 3

esriDiagramAccessType
esriDiagramPublicAccess = 1
esriDiagramProtectedAccess = 2
esriDiagramPrivateAccess = 3

esriDiagramExtendType
esriDiagramExtendByConnectivity = 1
esriDiagramExtendByTraversability = 2
esriDiagramExtendByAttachment = 3
esriDiagramExtendByContainment = 4

esriDiagramFlagType
esriDiagramRootJunction = 1
esriDiagramEndJunction = 2
esriDiagramPivotJunction = 3
esriDiagramBarrierJunction = 4
esriDiagramBarrierEdge = 5

esriDiagramAggregationType
esriDiagramNoneAggregation = 0
esriDiagramEdgeAggregation = 1
esriDiagramJunctionAggregation = 2
esriDiagramContainerAggregation = 3

esriLayoutBranchPlacementType
esriLayoutLeftSideOfMainLine = 0
esriLayoutRightSideOfMainLine = 1
esriLayoutBothSidesOfMainLine = 2

esriLayoutDegreeOfFreedom
esriLayoutLowDegree= 1
esriLayoutMediumDegree = 2
esriLayoutHighDegree = 3

esriLayoutEdgesType
esriLayoutRegularEdge = 0
esriLayoutOrthogonalEdge = 1
esriLayoutCurvedEdge = 2

esriLayoutHierarchicalType
esriLayoutLeftMainLine = 0
esriLayoutRightMainLine = 1
esriLayoutMainLine = 2
esriLayoutSmartTree = 4

esriLayoutJunctionsPlacement
esriLayoutEqualDistance = 1
esriLayoutUserDefineDistance = 2
esriLayoutIterativeDistance = 3

esriLayoutMainRingType
esriLayoutMainRingRectangle = 0
esriLayoutMainRingEllipse = 1

esriLayoutMarkCrossingPosition
esriLayoutMarkCrossingLeft = 1
esriLayoutMarkCrossingRight = 2
esriLayoutMarkCrossingAbove = 3
esriLayoutMarkCrossingBelow = 4

esriLayoutNumberOfDirection
esriLayout4Directions = 4
esriLayout8Directions = 8
esriLayout12Directions = 12

esriLayoutTreeDirection
esriLayoutRightLeft = 0
esriLayoutTopDown = 1
esriLayoutLeftRight = 2
esriLayoutBottomUp = 3

esriLayoutVertexRemovalRule
esriRemoveAllVertices = 1
esriKeepContainedVertices = 2
esriKeepContainedVerticesAndFirstOutside = 3
esriKeepOnlyVerticesOfContainedEdges = 4