ArcGIS SpatialAnalystUI
Object Model

Esri® ArcGIS® 10.5

MdElement
in GeoprocessingUI

IMdSaCellSizeCtrl — **MdSaCellSizeCtrl**

IMdSaGridUsageCtrl — **MdSaGridUsageCtrl**

IMdSaHFactorCtrl — **MdSaHFactorCtrl**

IMdSaMapAlgebraCtrl — **MdSaMapAlgebraCtrl**

IMdSaNeighborhoodCtrl — **MdSaNeighborhoodCtrl**

IMdSaRadiusCtrl — **MdSaRadiusCtrl**

IMdSaReclassCtrl — **MdSaReclassCtrl**

IMdSaSemiVariogramCtrl — **MdSaSemiVariogramCtrl**

IMdSaTimeConfigCtrl — **MdSaTimeConfigCtrl**

IMdSaVFactorCtrl — **MdSaVFactorCtrl**

IMdSaWeightedOverlayCtrl — **MdSaWeightedOverlayCtrl**

RasterAnalysisToolbarEnvironment

IRasterAnalysisToolbarEnvironment —
IRasterAnalysisToolbarEnvironment
CurSelLayer: ILayer

SAExtension

IExtension
IExtensionConfig
IExtensionManager
IPersist
IPersistStream

RasterSettings

IGeoAnalysisEnvironment
IRasterAnalysisEnvironment
IRasterAnalysisGDBEnvironment

Class Diagram Key

AbstractClass

InterfaceA
(Optional)InterfaceB — Interface of interest

Type inheritance

Instantiation

CoClass

InterfaceD
InterfaceB — Interface of interest

Composition

Class

InterfaceG
InterfaceM
(<classname>)InterfaceO — 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