

# RhinoCommon V8 Class Heirarchy

This is an inheritance diagram of Rhino3D's .NET RhinoCommon (Rhino3D V8) objects which have parents and/or children.

Courtesy of [Falcata Group](#)

Rev 0, Dec 3, 2023

## Key Classes

[Geometry Base](#) - and subclasses like surfaces, curves, etc.

[RhinoObject](#) - and subclasses representing top level objects in Rhino models

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```
RhinoCommon
Command
  SelCommand
  TransformCommand
CommonObject
  BrepRegion
  BrepRegionFaceSide
  CachedTextureCoordinates
  Environment
  GeometryBase
    AnnotationBase
      Dimension
        AngularDimension
        Centermark
        LinearDimension
        OrdinateDimension
        RadialDimension
      Leader
      TextEntity
    Brep
    BrepLoop
    Curve
      ArcCurve
      CurveProxy
        BrepEdge
        BrepTrim
        HldCurveProxy
      LineCurve
      NurbsCurve
      PolyCurve
      PolylineCurve
    DetailView
    Hatch
    InstanceReferenceGeometry
    Light
    Mesh
    MorphControl
    Point
      BrepVertex
```

- Point3dGrid
- PointCloud
- SubD
- Surface
  - Extrusion
  - NurbsSurface
  - PlaneSurface
    - ClippingPlaneSurface
  - RevSurface
  - SumSurface
  - SurfaceProxy
  - BrepFace
- TextDot
- UnknownGeometry
- ModelComponent
  - BitmapEntry
  - DimensionStyle
  - File3dmEmbeddedFile
  - File3dmObject
  - File3dmRenderContent
    - File3dmRenderEnvironment
    - File3dmRenderMaterial
    - File3dmRenderTexture
- Group
- HatchPattern
- InstanceDefinitionGeometry
  - InstanceDefinition
- Layer
- Linetype
- Material
- RhinoObject
  - AnnotationObjectBase
    - DimensionObject
      - AngularDimensionObject
      - CentermarkObject
      - LinearDimensionObject
      - OrdinateDimensionObject
      - RadialDimensionObject
    - LeaderObject
    - TextObject
  - BrepObject
    - CustomBrepObject
  - ClippingPlaneObject
  - CurveObject
    - CustomCurveObject
  - DetailViewObject
  - ExtrusionObject
  - GripObject
    - CustomGripObject
  - HatchObject
  - InstanceObject
  - LightObject
  - MeshObject
    - CustomMeshObject

- MorphControlObject
- NamedViewWidgetObject
- PointCloudObject
- PointObject
  - CustomPointObject
- ProxyObject
- SubDObject
- SurfaceObject
- TextDotObject
- SectionStyle
- TextureMapping
- ObjectAttributes
- RenderSettings
- Texture
- ViewportInfo
- ContentUI
  - ExpandableContentUI
- CreaseDefiner
  - CreasesReader
- CustomRenderMeshProvider
  - CustomRenderMeshProvider2
- DocumentEventArgs
  - DocumentOpenEventArgs
  - DocumentSaveEventArgs
- DrawEventArgs
  - CalculateBoundingBoxEventArgs
  - CullObjectEventArgs
  - DrawForegroundEventArgs
  - DrawObjectEventArgs
  - GetPointDrawEventArgs
  - GripsDrawEventArgs
- FactoryBase
  - Factory
  - InternalRdkViewModelFactory
    - ThumbnailViewModelFactory
  - PostEffectFactoryBase
    - PostEffectFactory
- Field
  - BoolField
  - ByteArrayField
  - Color4fField
  - DateTimeField
  - DoubleField
  - FloatField
  - GuidField
  - IntField
  - NullField
  - Point2dField
  - Point3dField
  - Point4dField
  - StringField
  - TransformField
  - Vector2dField
  - Vector3dField

- FreeFloatingBase
  - DocumentOrFreeFloatingBase
    - Dithering
    - GroundPlane
    - LinearWorkflow
    - PostEffectCollection
    - PostEffectsImpl
    - RenderChannels
    - SafeFrame
    - Skylight
    - Sun
  - RdkContentLookup
- GetBaseClass
  - GetCancel
  - GetInteger
  - GetNumber
  - GetObject
  - GetOption
  - GetPoint
    - GetTransform
  - GetString
- Graph
  - MeshFromLinesGraph
- IMeshTask
  - IMeshTask`2
  - ITopologist
    - CatmullClarkTopologist
    - InternalPolygonTopologist
    - SierpinkyTrianglesTopologist
- IntPtrSafeHandle
  - ContentHashUnmanagedHandle
  - IntPtrSafeHandleImplementer
  - NameHashUnmanagedHandle
- INumberProvider
  - LoopLoopFlashLookup
  - LoopWarrenFlashLookup
  - LoopWarrenWeimerFlashLookup
- IWeaver
  - CatmullClarkWeaver
  - LoopWeaver
- IWeshTopology
  - WeshTopology
    - WeldedWeshTopology
    - WeldedInvariantWeshTopology
- ManifestTable
  - File3dmManifestTable
  - RhinoDocManifestTable
- NamedItemInterfaceCommand
  - NamedItemCommand
- NativeCollapsibleSectionHolder
  - NativeCollapsibleSectionHolder2
- ObjectManagerExtension
  - ObjectManagerExtensionNative
- ObjectManagerNode

- ObjectManagerNodeNative
- ObjectManagerNodeCommand
  - ObjectManagerNodeCommandNative
- ObjectManagerNodeQuickAccessProperty
  - ObjectManagerNodeQuickAccessPropertyNative
- PanelEventArgs
  - ShowPanelEventArgs
- PersistentSettingsEventArgs
  - PersistentSettingsEventArgs`1
- PlugIn
  - DigitizerPlugIn
  - FileExportPlugIn
  - FileImportPlugIn
  - RenderPlugIn
- Point3dList
  - Polyline
- PostEffect
  - PostEffectNative
- RealtimeDisplayMode
  - RealtimeDisplayModePointerWrapper
- RenderContent
  - RenderEnvironment
    - NativeRenderEnvironment
  - RenderMaterial
    - NativeRenderMaterial
  - RenderTexture
    - NativeRenderTexture
    - TwoColorRenderTexture
- RenderContentEventArgs
  - RenderContentChangedEventArgs
  - RenderContentFieldChangedEventArgs
- RenderContentTableEventArgs
  - RenderMaterialAssignmentChangedEventArgs
- RenderingSidePane
  - RenderingMainSidePanePage
- RenderPanelInstances
  - RenderPanelData
  - RenderTabData
- RhinoAccountsException
  - RhinoAccountsAuthTokenMismatchException
  - RhinoAccountsCannotListenException
  - RhinoAccountsInvalidResponseException
  - RhinoAccountsInvalidStateException
  - RhinoAccountsInvalidTokenException
  - RhinoAccountsOperationInProgressException
  - RhinoAccountsProxyException
  - RhinoAccountsServerException
  - RhinoAccountsServerNotReachableException
- RhinoView
  - RhinoPageView
- SpaceMorph
  - BendSpaceMorph
  - FlowSpaceMorph
  - MaelstromSpaceMorph

- NativeSpaceMorphWrapper
- SplopSpaceMorph
- SporphSpaceMorph
- StretchSpaceMorph
- TaperSpaceMorph
- TwistSpaceMorph
- StackedDialogPage
  - OptionsDialogPage
- SubDComponent
  - SubDEdge
  - SubDFace
  - SubDVertex
- SurfaceFilletBase
  - SurfaceFillet
  - SurfaceToCurveFillet
  - SurfaceToRailFillet
- TextLog
  - CommandLineTextLog
- UICommand
  - NativeUICommand
- UserData
  - UnknownUserData
  - UserDictionary
    - SharedUserDictionary
- UserInterfaceCommand
  - RenderingCommand
  - RenderingPostEffectCommand
- ViewCaptureWriter
  - SvgWriter
- VisualAnalysisMode
  - NativeVisualAnalysisMode