Autodesk® Inventor® 2010 API Object Model

Version 2, May 7, 2009

Application

- ApplicationAddIns
  - ApplicationAddIn
  - TranslatorAddIn
- ApplicationEvents
- AssemblyEvents
- AssemblyOptions
- ChangeManager
  - ChangeDefinitions
    - ChangeDefinition
      - ChangeProcessor
- ColorSchemes
  - ColorScheme
- CommandManager
  - CommandCategories
    - CommandCategory
  - ControlDefinitions
    - ControlDefinition **[b]**
    - ButtonDefinition *(b)*
    - ComboBoxDefinition *(b)*
    - MacroControlDefinition *(b)*
  - InteractionEvents
    - InteractionGraphics
      - ClientGraphics *
      - GraphicsDataSets *
    - KeyboardEvents
    - MeasureEvents
    - MouseEvents
      - PointInferenceEnumerator
        - PointInference
    - SelectEvents
    - TriadEvents
  - UserInputEvents
- ContentCenter
  - ContentTreeViewNode
    - ContentFamiliesEnumerator
      - ContentFamily
      - ContentTableColumns
        - ContentTableColumn
          - ExpressionLimits
      - ContentTableRows
        - ContentTableRow
          - ContentTableCell
    - ContentTreeViewNodesEnumerator
      - ContentTreeViewNode
- ContentCenterOptions
- DisplayOptions
  - ShadedDisplayOptions
  - WireframeDisplayOptions
- DrawingOptions
- ErrorManager
  - MessageSection
- FileAccessEvents
- FileDialog
  - FileDialogEvents
- FileLocations
- FileManager
  - FileManagerEvents
  - FilesEnumerator
    - File
      - FileDescriptorsEnumerator
        - FileDescriptor
- FileOptions
- FileUIEvents
- FileVersion
- GeneralOptions
  - GripSnapOptions
  - ThreadTableQuery
- HardwareOptions
- HelpManager
- iFeatureOptions
- InventorVBAProjects
  - InventorVBAProject
    - InventorVBAComponents
      - InventorVBAComponent
        - InventorVBAMembers
          - InventorVBAMember
            - InventorVBAArguments
              - InventorVBAArgument
- LanguageTools
- MeasureTools
- ModelingEvents
- NotebookOptions
- PartOptions
- ProgressBar
- RepresentationEvents
- SaveOptions
- Sketch3DOptions
- SketchEvents
- SketchOptions
- SoftwareVersion
- StyleEvents
- StylesManager
  - MaterialsEnumerator
- TransactionManager
  - CheckPoint
    - Transaction
      - CheckPointsEnumerator
  - TransactionEvents
  - TransactionsEnumerator
- TransientBRep
- TransientGeometry *
- TransientObjects *
- UnitsOfMeasure
- UserInterfaceManager
  - CommandBars
    - CommandBar
      - CommandBarControls
        - CommandBarControl
  - EnvironmentList
  - Environments
    - Environment
      - CommandBarList
      - DisabledCommandList
      - PanelBar
  - Ribbons
    - Ribbon
      - RibbonTabs
        - RibbonTab
          - RibbonPanels
            - RibbonPanel
              - CommandControls
                - CommandControl
- UserInterfaceEvents
- Views
  - View
    - Camera

- Documents
  - Document **[a]**
    - AttributeManager
      - AttributesEnumerator
      - AttributeSetsEnumerator
    - BrowserPanes
      - BrowserPane
        - BrowserNode
          - BrowserNodeDefinition **[ee]**
          - BrowserNodesEnumerator
            - BrowserNode
              - BrowserFoldersEnumerator
                - BrowserFolder
          - ClientBrowserNodeDefinition *(ee)*
          - NativeBrowserNodeDefinition *(ee)*
      - BrowserPanesEvents
      - ClientNodeResources
        - ClientNodeResource
    - DocumentDescriptorsEnumerator
      - DocumentDescriptor
    - DocumentEvents
    - DocumentInterests
      - DocumentInterest
    - EnvironmentManager
    - FileVersions
      - FileVersion
    - GraphicsDataSetsCollection *
    - HighlightSet
    - InventorVBAProject
    - PrintManager
    - PropertySets
      - PropertySet
        - Property
    - ReferencedOLEFileDescriptors
      - ReferencedOLEFileDescriptor
    - ReferenceKeyManager
    - SelectSet
    - SketchSettings
    - SoftwareVersion
    - UnitsOfMeasure

PartDocument *(a)*

- PartComponentDefinition **[n]**
  - AnalysisManager
    - DraftAnalyses
      - DraftAnalysis
  - ClientGraphicsCollection *
  - DataIO
  - iMateDefinitions
    - iMateDefinition **[o]**
    - AngleiMateDefinition *(o)*
    - CompositeiMateDefinition *(o)*
    - FlushiMateDefinition *(o)*
    - InsertiMateDefinition *(o)*
    - MateiMateDefinition *(o)*
    - RotateRotateiMateDefinition *(o)*
    - RotateTranslateiMateDefinition *(o)*
    - TangentiMateDefinition *(o)*
  - iPartFactory
    - FactoryOptions
    - iPartTableColumns
      - iPartTableColumn
    - iPartTableRows
      - iPartTableRow
        - iPartTableCell
  - iPartMember
  - LightingStyles
    - LightingStyle *(z)*
      - Lights
        - Light
  - MassProperties
  - Materials
    - Material
  - ModelingSettings
    - UserCoordinateSystemSettings
      - iFeatureTemplateDescriptors
        - iFeatureTemplateDescriptor
  - Parameters *
  - PartEvents
  - PlanarSketches
    - PlanarSketch *(p)* **[ff]** *
      - ProjectedCuts
        - ProjectedCut *
      - SketchBlocks
        - SketchBlock *
  - ReferenceComponents
    - DerivedAliasComponents
      - DerivedAliasComponent *
    - DerivedAssemblyComponents
      - DerivedAssemblyComponent
        - DerivedAssemblyDefinition
          - DerivedAssemblyOccurrences
            - DerivedAssemblyOccurrence
          - ReferenceFeaturesEnumerator
    - DerivedPartComponents
      - DerivedPartDefinition **[cc]**
        - DerivedPartEntities
          - DerivedPartEntity
      - DerivedPartCoordinateSystemDef *(cc)*
      - DerivedPartTransformDef *(cc)*
      - DerivedPartUniformScaleDef *(cc)*
      - ParametersEnumerator
      - ReferenceFeaturesEnumerator
      - SketchBlockDefinitionsEnumerator
        - SketchBlocksEnumerator
      - SketchBlocks
      - Sketches3DEnumerator
  - RenderStyles
    - RenderStyle *(z)*
  - Sketch3DSettings
  - SketchBlockDefinitions
    - SketchBlockDefinition *(f)*
  - Sketches3D
    - Sketch3D *
  - SurfaceBodies *
  - UserCoordinateSystems
    - UserCoordinateSystem *
  - WorkAxes
    - WorkAxis
      - AnalyticEdgeWorkAxisDef
      - FixedWorkAxisDef
      - LineAndPlaneWorkAxisDef
      - LineAndPointWorkAxisDef
      - LineWorkAxisDef
      - NormalToSurfaceWorkAxisDef
      - RevolvedFaceWorkAxisDef
      - TwoPlanesWorkAxisDef
      - TwoPointsWorkAxisDef
  - WorkPlanes
    - WorkPlane
      - FixedWorkPlaneDef
      - LineAndTangentWorkPlaneDef
      - LinePlaneAndAngleWorkPlaneDef
      - NormalToCurveWorkPlaneDef
      - PlaneAndOffsetWorkPlaneDef
      - PlaneAndPointWorkPlaneDef
      - PlaneAndTangentWorkPlaneDef
      - PointAndTangentWorkPlaneDef
      - ThreePointsWorkPlaneDef
      - TorusMidPlaneWorkPlaneDef
      - TwoLinesWorkPlaneDef
      - TwoPlanesWorkPlaneDef
  - WorkPoints
    - WorkPoint
      - CentroidWorkPointDef
      - CurveAndEntityWorkPointDef
      - FixedWorkPointDef
      - MidPointWorkPointDef
      - NonLinearEdgeWorkPointDef
      - PointWorkPointDef
      - ThreePlanesWorkPointDef
      - TorusCenterPointWorkPointDef
      - TwoLinesWorkPointDef
- PartFeatures **[bb]**
  - PartFeature **[c]**
    - FeatureDimensions
      - FeatureDimension
  - BendPartFeatures
    - BendPartFeature *(c)*
  - BossFeatures
    - BossFeature
  - BoundaryPatchFeatures
    - BoundaryPatchFeature *(c)*
      - BoundaryPatchDefinition
        - BoundaryPatchLoops
          - BoundaryPatchLoop
  - ChamferFeatures
    - ChamferFeature *(c)*
      - ChamferDefinition **[d]**
      - DistanceAndAngleChamferDef *(d)*
      - DistanceChamferDef *(d)*
      - TwoDistancesChamferDef *(d)*
  - CircularPatternFeatures
    - CircularPatternFeature *(c)*
      - FeaturePatternElementIs
        - FeaturePatternElement
  - ClientFeatures
    - ClientFeature *(c)*
      - ClientFeatureDefinition
        - ClientFeatureElements
          - ClientFeatureElement
        - ClientGraphicsCollection *
  - CoilFeatures
    - CoilFeature *(c)*
      - PartFeatureExtent **[e]**
      - PitchAndHeightCoilExtent *(e)*
      - PitchAndRevolutionCoilExtent *(e)*
      - RevolutionAndHeightCoilExtent *(e)*
      - SpiralCoilExtent *(e)*
  - CombineFeatures
    - CombineFeature *
  - DecalFeatures
    - DecalFeature *(c)*
  - DeleteFaceFeatures
    - DeleteFaceFeature *(c)*
  - EmbossFeatures
    - EmbossFeature *(c)*
  - ExtendFeatures
    - ExtendFeature *(c)*
  - ExtrudeFeatures
    - ExtrudeFeature *(c)*
      - PartFeatureExtent **[e]**
      - DistanceExtent *(e)*
      - FromToExtent *(e)*
      - ThroughAllExtent *(e)*
      - ToExtent *(e)*
      - ToNextExtent *(e)*
  - FaceDraftFeatures
    - FaceDraftFeature *(c)*
  - FilletFeatures
    - FilletFeature *(c)*
      - FilletDefinition
        - FilletRadiusEdgeSet **[x]**
        - FilletConstantRadiusEdgeSet *(x)*
        - FilletConstantRadiusFaceSet
        - FilletFullRoundSet
        - FilletSetback
        - FilletSetbackVertex
        - FilletVariableRadiusEdgeSet *(x)*
          - FilletIntermediateRadius
  - GrillFeatures
    - GrillFeature
  - HoleFeatures
    - HoleFeature *(c)*
      - HolePlacementDefinition **[f]**
      - PartFeatureExtent **[e]**
      - ConcentricHolePlacementDefinition *(f)*
      - DistanceExtent *(e)*
      - HoleTapInfo *(g)*
      - LinearHolePlacementDefinition *(f)*
      - PointHolePlacementDefinition *(f)*
      - SketchHolePlacementDefinition *(f)*
      - ThroughAllExtent *(e)*
      - ToExtent *(e)*
  - iFeatures
    - iFeature *(c)*
      - iFeatureDefinition
        - iFeatureInputs
          - iFeatureInput **[t]**
          - iFeatureEntityInput *(t)*
          - iFeatureParameterInput *(t)*
          - iFeatureSketchPlaneInput *(t)*
          - iFeatureVectorInput *(t)*
          - iFeatureWorkPlaneInput *(t)*
      - iFeatureTable
        - iFeatureTableColumns
          - iFeatureTableColumn
        - iFeatureTableRows
          - iFeatureTableRow
            - iFeatureTableCell
      - iFeatureTemplateDescriptor
  - KnitFeatures
    - KnitFeature *(c)*
  - LipFeatures
    - LipFeature *
  - LoftFeatures
    - LoftFeature *(c)*
      - LoftDefinition
        - LoftSectionDimensions
          - LoftSectionDimension
      - LoftRails
        - LoftRail
      - MapPointCurves
        - MapPointCurve
  - MirrorFeatures
    - MirrorFeature *(c)*
  - MoveFaceFeatures
    - MoveFaceFeature *(c)*
  - MoveFeatures
    - MoveFeature *
  - NonParametricBaseFeatures
    - NonParametricBaseFeature *(c)*
  - RectangularPatternFeatures
    - RectangularPatternFeature *(c)*
      - FeaturePatternElements
        - FeaturePatternElement
  - ReferenceFeatures
    - ReferenceFeature *(c)*
  - ReplaceFaceFeatures
    - ReplaceFaceFeature *(c)*
  - RestFeatures
    - RestFeature *
  - RevolveFeatures
    - RevolveFeature *(c)*
      - PartFeatureExtent **[e]**
      - AngleExtent *(e)*
      - FullSweepExtent *(e)*
  - RibFeatures
    - RibFeature *(c)*
  - RuleFilletFeatures
    - RuleFilletFeature *
  - SculptFeatures
    - SculptFeature *(c)*
      - SculptSurface
  - ShellFeatures
    - ShellFeature *(c)*
      - ShellDefinition
        - ShellThicknessFaceSet
  - SnapFitFeatures
    - SnapFitFeature *
  - SplitFeatures
    - SplitFeature *(c)*
  - SweepFeatures
    - SweepFeature *(c)*
      - Path
        - PathEntity
      - SweepDefinition **[w]**
      - PathAndGuideRailSweepDef *(w)*
      - PathAndGuideSurfaceSweepDef *(w)*
      - PathAndSectionTwistsSweepDef *(w)*
      - PathSweepDef *(w)*
  - ThickenFeatures
    - ThickenFeature *(c)*
  - ThreadFeatures
    - ThreadFeature *(c)*
      - ThreadInfo **[g]**
      - StandardThreadInfo *(g)*
      - TaperedThreadInfo *(g)*
  - TrimFeatures
    - TrimFeature *(c)*
  - WorkSurfaces
    - WorkSurface
      - SurfaceBody *
- SheetMetalComponentDefinition *(n)*
  - FlatPattern *(n)*
    - CosmeticBendFeatures
      - CosmeticBendFeature
    - FlatBendResults
      - FlatBendResult
    - FlatPatternFeatures
    - FlatPunchResults
      - FlatPunchResult
    - SurfaceBodies *
  - SheetMetalStyles
    - SheetMetalStyle *(z)*
      - BendOptions
      - CornerOptions
  - UnfoldMethods
    - UnfoldMethod *(z)*
  - SheetMetalFeatures *(bb)*
    - BendFeatures
      - BendFeature *(c)*
        - BendDefinition
          - BendOptions
    - ContourFlangeFeatures
      - ContourFlangeFeature *(c)*
        - ContourFlangeDefinition
          - PartFeatureExtent **[e]**
          - BendOptions
          - CenteredWidthExtent *(e)*
          - CornerOptions
          - EdgeWidthExtent *(e)*
          - FromToWidthExtent *(e)*
          - OffsetWidthExtent *(e)*
          - WidthOffsetWidthExtent *(e)*
    - ContourRollFeatures
      - ContourRollFeature *
    - CornerChamferFeatures
      - CornerChamferFeature *(c)*
        - CornerChamferDefinition
          - ChamferDefinition **[d]**
          - DistanceAndAngleChamferDef *(d)*
          - DistanceChamferDef *(d)*
          - TwoDistancesChamferDef *(d)*
    - CornerFeatures
      - CornerFeature *(c)*
        - CornerDefinition
          - BendOptions
          - CornerOptions
    - CornerRoundFeatures
      - CornerRoundFeature *(c)*
        - CornerRoundDefinition
          - CornerRoundEdgeSet
    - CutFeatures
      - CutFeature *(c)*
        - CutDefinition
          - PartFeatureExtent **[e]**
          - CutAcrossBendsExtent *(e)*
          - DistanceExtent *(e)*
          - FromToExtent *(e)*
          - ThroughAllExtent *(e)*
          - ToExtent *(e)*
          - ToNextExtent *(e)*
    - PartFeature **[c]**
    - FaceFeatures
      - FaceFeature *(c)*
        - FaceFeatureDefinition
          - BendOptions
    - FlangeFeatures
      - FlangeFeature *(c)*
        - BendFeature *(c)*
        - CornerFeature *(c)*
        - FlangeDefinition
          - PartFeatureExtent **[e]**
          - BendOptions
          - CenteredWidthExtent *(e)*
          - CornerOptions
          - DistanceHeightExtent *(e)*
          - EdgeWidthExtent *(e)*
          - FromToWidthExtent *(e)*
          - LegacyDistanceHeightExtent *(e)*
          - OffsetWidthExtent *(e)*
          - ToHeightExtent *(e)*
          - WidthOffsetWidthExtent *(e)*
    - FoldFeatures
      - FoldFeature *(c)*
        - FoldDefinition
          - BendOptions
    - HemFeatures
      - HemFeature *(c)*
        - HemDefinition
          - PartFeatureExtent **[e]**
          - BendOptions
          - CenteredWidthExtent *(e)*
          - DoubleHemDefinition
          - EdgeWidthExtent *(e)*
          - FromToWidthExtent *(e)*
          - OffsetWidthExtent *(e)*
          - RolledHemDefinition
          - SingleHemDefinition
          - TeardropHemDefinition
          - WidthOffsetWidthExtent *(e)*
    - LoftedFlangeFeatures
      - LoftedFlangeFeature
    - PunchToolFeatures
      - PunchToolFeature *(c)*
    - RefoldFeatures
      - RefoldFeature
    - RipFeatures
      - RipFeature
    - UnfoldFeatures
      - UnfoldFeature

AssemblyDocument *(a)*

- LightingStyles
  - LightingStyle *(z)*
    - Lights
      - Light
- Materials
  - Material *(z)*
- ModelingSettings
  - RenderStyles
    - RenderStyle *(z)*
- WeldmentComponentDefinition *(m)*
  - Machining
  - Preparations
  - WeldsComponentDefinition
  - Welds
    - CosmeticWelds
      - CosmeticWeld
    - Weld
      - WeldBeads
        - WeldBead
- AssemblyComponentDefinition **[m]**
  - AssemblyConstraints
    - AssemblyConstraint **[l]**
      - LayoutConstraint
    - AngleConstraint *(l)*
    - FlushConstraint *(l)*
    - InsertConstraint *(l)*
    - MateConstraint *(l)*
    - RotateRotateConstraint *(l)*
    - RotateTranslateConstraint *(l)*
    - TangentConstraint *(l)*
    - TransitionalConstraint *(l)*
    - TranslateTranslateConstraint *(l)*
  - AssemblyEvents
  - BOM
    - BOMViews
      - BOMView
        - BOMRowsEnumerator
          - BOMRow
            - ComponentDefinitionsEnumerator
  - BOMQuantity
  - ClientGraphicsCollection *
  - ComponentOccurrences
    - ComponentOccurrence
      - AssemblyConstraintsEnumerator
      - ComponentOccurrencesEnumerator
      - SurfaceBodies
      - VirtualComponentDefinition
  - DataIO
  - Features
  - iAssemblyFactory
    - FactoryOptions
    - iAssemblyTableColumns
      - iAssemblyTableColumn
        - iAssemblyTableCell
    - iAssemblyTableRows
      - iAssemblyTableRow
        - iAssemblyTableCell
  - iAssemblyMember
  - iMateDefinitions
    - iMateDefinition **[o]**
    - AngleiMateDefinition *(o)*
    - CompositeiMateDefinition *(o)*
    - FlushiMateDefinition *(o)*
    - InsertiMateDefinition *(o)*
    - MateiMateDefinition *(o)*
    - RotateRotateiMateDefinition *(o)*
    - RotateTranslateiMateDefinition *(o)*
    - TangentiMateDefinition *(o)*
  - iMateResults
    - iMateResult
      - iMateResultsEnumerator
  - InterferenceResults
    - InterferenceResult
  - MassProperties
  - OccurrencePatterns
    - OccurrencePattern **[k]**
      - OccurrencePatternElements
        - OccurrencePatternElement
    - CircularOccurrencePattern *(k)*
    - FeatureBasedOccurrencePattern *(k)*
    - RectangularOccurrencePattern *(k)*
  - Parameters *
  - RepresentationsManager
    - DesignViewRepresentations
      - DesignViewRepresentation
    - LevelOfDetailRepresentations
      - LevelOfDetailRepresentation
    - PositionalRepresentations
      - PositionalRepresentation
  - UserCoordinateSystems
    - UserCoordinateSystem *
  - WorkAxes
    - WorkAxis
      - AssemblyWorkAxisDef
  - WorkPlanes
    - WorkPlane
      - AssemblyWorkPlaneDef
  - WorkPoints
    - WorkPoint
      - AssemblyWorkPointDef

DrawingDocument *(a)*

- BorderDefinitions
  - BorderDefinition
- DrawingBOMs
  - DrawingBOM
    - DrawingBOMColumns
      - DrawingBOMColumn
    - DrawingBOMRows
      - DrawingBOMRow
        - DrawingBOMCell
- DrawingEvents
- DrawingPrintManager
- DrawingSettings
  - AutomatedCenterlineSettings *
- SheetFormats
  - SheetFormat
- SheetSettings
- SketchedSymbolDefinitions
  - SketchedSymbolDefinition
- TitleBlockDefinitions
  - TitleBlockDefinition
- DrawingStylesManager
  - Styles
    - Style **[z]**
  - BalloonStylesEnumerator
    - BalloonStyle *(z)*
  - CentermarkStylesEnumerator
    - CentermarkStyle *
  - DimensionStylesEnumerator
    - DimensionStyle *(z)*
  - DrawingStandardStylesEnumerator
    - DrawingStandardStyle *(z)*
  - FeatureControlFrameStylesEnumerator
    - FeatureControlFrameStyle *(z)*
  - HoleTableStylesEnumerator
    - HoleTableStyle *(z)*
  - LayersEnumerator
    - Layer *(z)*
  - LeaderStylesEnumerator
    - LeaderStyle *(z)*
  - ObjectDefaultsStylesEnumerator
    - ObjectDefaultsStyle *(z)*
  - SurfaceTextureStylesEnumerator
    - SurfaceTextureStyle *(z)*
  - TextStylesEnumerator
    - TextStyle *(z)*
- Sheets
  - Sheet
    - Balloons
      - Balloon
        - BalloonValueSets
          - BalloonValueSet
        - Leader *
    - Border
    - Centerlines
      - Centerline
    - Centermarks
      - Centermark
    - CustomTables
      - CustomTable
        - Columns
          - Column
        - Rows
          - Row
            - Cell
        - TableFormat
    - DataIO
    - DrawingDimensions
      - DrawingDimension **[ff]**
        - DimensionText
      - BaselineDimensionSets
        - BaselineDimensionSet
      - GeneralDimensions
        - GeneralDimension *(ff)* **[u]**
          - DimensionText
        - AngularGeneralDimension *(u)*
        - DiameterGeneralDimension *(u)*
        - LinearGeneralDimension *(u)*
        - RadiusGeneralDimension *(u)*
      - OrdinateDimensions
        - OrdinateDimension *(ff)*
      - OrdinateDimensionSets
        - OrdinateDimensionSet
          - OrdinateDimensionsEnumerator
    - DrawingNotes
      - DrawingNote **[aa]**
      - BendNotes
        - BendNote
      - ChamferNotes
        - ChamferNote
      - GeneralNotes
        - GeneralNote *(aa)*
      - HoleThreadNotes
        - HoleThreadNote
      - LeaderNotes
        - LeaderNote *(aa)*
          - Leader *
      - PunchNotes
        - PunchNote
    - DrawingSketches
      - DrawingSketch *(p)* *
        - SketchFillRegions
          - SketchFillRegion
    - DrawingViews
      - DrawingView **[v]**
        - AutomatedCenterlineSettings *
        - BreakOperations
          - BreakOperation
        - BreakOutOperations
          - BreakOutOperation
        - ClientGraphicsCollection *
        - DataIO
        - DrawingCurvesEnumerator
          - DrawingCurve
            - DrawingCurveSegments
              - DrawingCurveSegment
        - DrawingSketches
        - DrawingViewEvents
        - DrawingViewLabel
        - GraphicsDataSetsCollection
        - OriginIndicator
      - DetailDrawingView *(v)*
      - SectionDrawingView *(v)*
    - FeatureControlFrames
      - FeatureControlFrame
        - FeatureControlFrameRows
          - FeatureControlFrameRow
            - Leader *
    - GeometryIntent
    - HoleTables
      - HoleTable
        - HoleTableColumns
          - HoleTableColumn
        - HoleTableRows
          - HoleTableRow
            - HoleTableCell
        - HoleTag
    - PartsLists
      - PartsList
        - PartsListColumns
          - PartsListColumn
        - PartsListRows
          - PartsListRow
            - PartsListCell
    - RevisionTables
      - RevisionTable
        - RevisionTableColumns
          - RevisionTableColumn
        - RevisionTableRows
          - RevisionTableRow
            - RevisionTableCell
    - SketchedSymbols
      - SketchedSymbol
        - Leader *
    - SurfaceTextureSymbols
      - SurfaceTextureSymbol
        - Leader *
    - TitleBlock

PresentationDocument *(a)*

- PresentationExplodedViews
  - PresentationExplodedView
    - TrailsEnumerator
      - Trail
        - TrailSegment

Legend

- Collection Objects: Objects
- Standard Objects: Object
- New Objects in Inventor 2010: Object
- User Interface Related Objects:
- Part Document Related Objects:
- Assembly Document Related Objects:
- Drawing Document Related Objects:
- Base Class Objects: **[x]**
- Derived Objects: *(x)*

See related object model chart for this object at the bottom of the poster: *

Client Graphics

- DrawingView
  - ClientGraphicsCollection
    - ClientGraphics
      - GraphicsNode
        - CurveGraphics
          - GraphicsPrimitive
            - LineGraphics
            - LineStripGraphics
            - PointGraphics
        - SurfaceGraphics
          - SurfaceGraphicsEdgeList
            - SurfaceGraphicsEdge
          - SurfaceGraphicsFaceList
            - SurfaceGraphicsFace
        - TextGraphics
        - TriangleFanGraphics
          - GraphicsColorMapper
          - GraphicsTextureCoordinateSet
        - TriangleGraphics
          - GraphicsColorMapper
          - GraphicsTextureCoordinateSet
        - TriangleStripGraphics
          - GraphicsColorMapper
          - GraphicsTextureCoordinateSet
        - ViewList
  - InteractionGraphics
- Component Definition
- Sheet
- Document
  - GraphicsDataSetsCollection
    - GraphicsDataSets
      - GraphicsDataSet **[dd]**
      - GraphicsColorMapper
      - GraphicsColorSet *(dd)*
      - GraphicsCoordinateSet *(dd)*
      - GraphicsIndexSet *(dd)*
      - GraphicsNormalSet *(dd)*
      - GraphicsTextureCoordinateSet
  - DrawingView
  - Sheet
  - InteractionGraphics

Transient Geometry & Objects

Geometry

- Arc2d
- BSplineCurve2d
- BSplineCurve2dDefinition
- Circle2d
- EllipseFull2d
- EllipticalArc2d
- Line2d
- LineSegment2d
- Point2d
- Polyline2d
- Arc3d
- BSplineCurve
- BSplineCurveDefinition
- Circle
- EllipseFull
- EllipticalArc
- Line
- LineSegment
- Point
- Polyline3d
- BSplineSurface
- Cone
- Cylinder
- EllipticalCone
- EllipticalCylinder
- Plane
- Sphere
- Torus

Math Objects

- Box
- Box2d
- Matrix
- Matrix2d
- UnitVector
- UnitVector2d
- Vector
- Vector2d

Utility Objects

- Color
- DataMedium
- EdgeCollection
- FaceCollection
- FileMetadata
- NameValueMap
- ObjectCollection
- ObjectCollectionByVariant
- ObjectsEnumeratorByVariant
- TranslationContext

Parameters

- Parameters
  - Parameter **[i]**
    - Tolerance
    - CustomPropertyFormat
  - CustomParameterGroups
    - CustomParameterGroup
  - DerivedParameterTables
    - DerivedParameterTable
      - DerivedParameters
        - DerivedParameter
  - ModelParameters
    - ModelParameter *(i)*
  - ParameterTables
    - ParameterTable
      - TableParameters
        - TableParameter *(i)*
  - ReferenceParameters
    - ReferenceParameter *(i)*
  - UserParameters
    - UserParameter *(i)*

Attributes

Inventor Entity

- AttributeSets
  - AttributeSet
    - Attribute

Apprentice Objects

- ApprenticeServerComponent
  - ApprenticeServerDocument
    - ApprenticePrintManager
    - ClientViews
      - ClientView
  - ApprenticeServerDrawingDocument
    - ApprenticeDrawingPrintManager
  - FileSaveAs

B-Rep

- SurfaceBodies
  - SurfaceBody
    - DataIO
    - FaceShells
      - FaceShell
        - Faces
          - Face
            - EdgeLoops
              - EdgeLoop
                - Edges
                - Edge
                - CurveEvaluator
                - Vertices
                - Vertex
                - Wire
                - EdgeUses
                - Curve2dEvaluator
                - EdgeUse
                - Wire
    - Wires
      - Wire
    - SurfaceEvaluator

2D Sketch

- Sketch **[p]**
  - DataIO
  - DimensionConstraints
    - DimensionConstraint **[s]**
    - DiameterDimConstraint *(s)*
    - EllipseRadiusDimConstraint *(s)*
    - OffsetDimConstraint *(s)*
    - RadiusDimConstraint *(s)*
    - TangentDistanceDimConstraint *(s)*
    - ThreePointAngleDimConstraint *(s)*
    - TwoLineAngleDimConstraint *(s)*
    - TwoPointDistanceDimConstraint *(s)*
  - GeometricConstraints
    - GeometricConstraint **[q]**
    - CoincidentConstraint *(q)*
    - CollinearConstraint *(q)*
    - ConcentricConstraint *(q)*
    - EqualLengthConstraint *(q)*
    - EqualRadiusConstraint *(q)*
    - GroundConstraint *(q)*
    - HorizontalAlignConstraint *(q)*
    - HorizontalConstraint *(q)*
    - MidpointConstraint *(q)*
    - OffsetConstraint *(q)*
    - ParallelConstraint *(q)*
    - PatternConstraint *(q)*
    - PerpendicularConstraint *(q)*
    - SmoothConstraint *(q)*
    - SplineFitPointConstraint *(q)*
    - SymmetryConstraint *(q)*
    - TangentSketchConstraint *(q)*
    - VerticalAlignConstraint *(q)*
    - VerticalConstraint *(q)*
  - Profiles
    - Profile
      - ProfilePath
        - ProfileEntity
      - TextBox
      - RegionProperties
        - Wires
          - Wire
  - SketchEntitiesEnumerator
    - SketchEntity **[r]**
  - SketchArcs
    - SketchArc *(r)*
  - SketchCircles
    - SketchCircle *(r)*
  - SketchEllipses
    - SketchEllipse *(r)*
  - SketchEllipticalArcs
    - SketchEllipticalArc *(r)*
  - SketchFixedSplines
    - SketchFixedSpline *(r)*
  - SketchImages
    - SketchImage
  - SketchLines
    - SketchLine *(r)*
  - SketchOffsetSplines
    - SketchOffsetSpline *(r)*
  - SketchPoints
    - SketchPoint *(r)*
  - SketchSplines
    - SketchSpline *(r)*
      - SketchSplineHandle
  - TextBoxes
    - TextBox

3D Sketch

- Sketch3D
  - DimensionConstraints3D
    - DimensionConstraint3D **[y]**
    - LineLengthDimConstraint3D *(y)*
    - PointAndPlaneDistanceDimConstraint3D *(y)*
    - RadiusDimConstraint3D *(y)*
    - TwoLineAngleDimConstraint3D *(y)*
    - TwoPointDistanceDimConstraint3D *(y)*
  - GeometricConstraints3D
    - GeometricConstraint3D **[h]**
    - BendConstraint *(h)*
    - CoincidentConstraint3D *(h)*
    - CollinearConstraint3D *(h)*
    - CustomConstraint3D *(h)*
    - GroundConstraint3D *(h)*
    - HelicalConstraint3D *(h)*
    - ParallelConstraint3D *(h)*
    - PerpendicularConstraint3D *(h)*
    - SmoothConstraint3D *(h)*
    - SplineFitPointsConstraint3D *(h)*
    - TangentConstraint3D *(h)*
  - Profiles3D
    - Profile3D
      - ProfilePath3D
        - ProfileEntity3D
      - Wires
        - Wire
  - SketchEntities3DEnumerator
    - SketchEntity3D **[j]**
  - SketchArcs3D
    - SketchArc3D *(j)*
  - SketchCircles3D
    - SketchCircle3D *(j)*
  - SketchEllipses3D
    - SketchEllipse3D *(j)*
  - SketchEllipticalArcs3D
    - SketchEllipticalArc3D *(j)*
  - SketchFixedSplines3D
    - SketchFixedSpline3D *(j)*
  - SketchLines3D
    - SketchLine3D *(j)*
  - SketchPoints3D
    - SketchPoint3D *(j)*
  - SketchSplines3D
    - SketchSpline3D *(j)*
      - SketchSplineHandle3D

Leaders

- Leader
  - LeaderNode
  - LeaderNodesEnumerator
    - LeaderNode