## multiscale::analysis ::SpatialEntityPseudo3D # clusterednessDegree # density # area # perimeter # distanceFromOrigin # angle # triangularMeasure # rectangularMeasure # circularMeasure # shape # centre # updateFlag # STR\_TRIANGLE # STR\_RECTANGLE # STR\_CIRCLE #STR UNDEFINED #OUTPUT\_SEPARATOR # ERR\_INPUT # CONVEX\_HULL\_CLOCKWISE + SpatialEntityPseudo3D() + ~SpatialEntityPseudo3D() + getClusterednessDegree() + getDensity() + getArea() + getPerimeter() + getDistanceFromOrigin() + getAngle() + getShape() + getShapeAsString() + getTriangularMeasure() + getRectangularMeasure() + getCircularMeasure() + getCentre() + toString() + fieldNamesToString() # updateMeasuresIfRequired() # updateMeasures() # updateClusterednessDegree() # updateDensity() # updateArea() # updatePerimeter() # updateShape() # updateCentrePoint() # isTriangularMeasure() # isRectangularMeasure() # isCircularMeasure() # shapeAsString() # fieldValuesToString() # convertPoints() - initialise()

## multiscale::analysis ::Cluster

- + ERR\_UNDEFINED\_SHAPE
- + ERR\_ORIGIN\_DEPENDENT

## **VALUES**

- minAreaEnclosingTriangle
- minAreaEnclosingRect
- minAreaEnclosingCircleCentre
- minArea⊑nciosingCircleRadius
- entities
- + Cluster()
- + ~Cluster()
- + addEntity()
- + getMinAreaEnclosingTriangle()
- + getMinAreaEnclosingRect()
- + getMinAreaEnclosingCircle

## Centre()

- + getMinAreaEnclosingCircle Radius()
- + getEntities()
- + getEntitiesConvexHull()
- + setOriginDependentMembers()
- initialise()
- getEntitiesCentrePoints()
- getEntitiesContourPoints()
- updateClusterednessDegree()
- updateDensity()
- updateArea()
- updatePerimeter()
- updateCentrePoint()
- isTriangularMeasure()
- isRectangularMeasure() isCircularMeasure()
- validateOriginDependentValues() - areValidOriginDependentValues()

multiscale::analysis ::Region

- polygon
- CONTOUR ORIENTED
- CONTOUR\_CLOSED
- + Region()
- + ~Region()
- + getPolygon()
- validateInputValues()
- areValidInputValues()
- updateClusterednessDegree()
- updateDensity()
- updateArea()
- updatePerimeter()
- isTriangularMeasure()
- isRectangularMeasure()
- isCircularMeasure()
- updateCentrePoint()