RenderData

- points
- spheres
- sphereBorderVertices
- currentSphereDepth
- colorMap

+ getColorsForTriangles()
+ getPointsAsVector()
+ getVerticesAtCurrentDepth()
+ setSphereDepth()
+ setColorMap()
+ loadPointsFromFile()
+ getInstance()
- RenderData()
- RenderData()
- generateIcosahedronAtDepthZero()
- calculateNextSubdivision()
- filterPointsForTriangle()
- getTransformationMatrix()
- insertTriangleIntoVertices
Vector()
- normalize()
- pointInFirstQuadrantAfter
Transformation()

_instance

QOpenGLWidget

QOpenGLFunctions

-renderData

SphereWidget

- m_lastPosition
- m_position
- m_rotation
- m_fovy
- aspectRatioWidthToHeight
- vbo_points
- vbo_sphereVertices
- vbo_vertexColors

+ SphereWidget()
+ ~SphereWidget()
+ updatePoints()
+ updateSphereVertices()
+ updateTriangleColor()
# initializeGL()
# resizeGL()
# paintGL()
# mousePressEvent()
# mouseMoveEvent()
# wheelEvent()