```
multiscale::analysis
              ::Detector
# avgClusterednessDegree
# avgDensity
# image
# outputFilepath
# debugMode
# outputImage
# detectMethodCalled
# detectorSpecificFieldsInitialised
# origin
# OUTPUT_CLUSTEREDNESS
#OUTPUT_DENSITY
# ERR_OUTPUT_WITHOUT
 DETECT
# ERR_OUTPUT_FILE
# ERR INVALID IMAGE
# CSV_EXTENSION
# IMG_EXTENSION
# XML_EXTENSION
# WIN_OUTPUT_IMAGE
# KEY_ESC
#KEY SAVE
# LABEL_ATTRIBUTE
# LABEL_COMMENT
# LABEL_COMMENT_CONTENTS
# LABEL_EXPERIMENT_TIMEPOINT
_AVG_CLUSTEREDNESS
# LABEL_EXPERIMENT_TIMEPOINT
 AVG DENSITY
# LABEL_EXPERIMENT_TIMEPOINT
_SPATIAL_ENTITY
# LABEL_SPATIAL_ENTITY
_PSEUDO_3D
# LABEL_SPATIAL_ENTITY_TYPE
# LABEL SPATIAL ENTITY
 CLUSTEREDNESS
# LABEL_SPATIAL_ENTITY
 DENSITY
# LABEL_SPATIAL_ENTITY_AREA
# LABEL SPATIAL ENTITY
PERIMETER
# LABEL_SPATIAL_ENTITY
DISTANCE_FROM_ORIGIN
# LABEL_SPATIAL_ENTITY
 _ANGLE_DEGREES
# LABEL_SPATIAL_ENTITY
 SHAPE
# LABEL_SPATIAL_ENTITY
 TRIANGLE_MEASURE
# LABEL_SPATIAL_ENTITY
RECTANGLE_MEASURE
# LABEL_SPATIAL_ENTITY
 CIRCLE_MEASURE
# LABEL_SPATIAL_ENTITY
CENTROID_X
# LABEL_SPATIAL_ENTITY
_CENTROID_Y
+ Detector()
+ ~Detector()
+ detect()
+ outputResults()
# initialise()
# initialiseDetectorSpecific
FieldsIfNotSet()
# setDetectorSpecificFields
InitialisationFlag()
# initialiseDetectorSpecific
Fields()
# initialiseImageDependent
Fields()
# initialiseDetectorSpecific
ImageDependentFields()
# initialiseImageOrigin()
# isValidInputImage()
# detect()
# detectInDebugMode()
# detectInReleaseMode()
# polygonAngle()
# polygonAngle()
# minAreaRectCentre()
# findGoodPointsForAngle()
# findGoodIntersectionPoints()
# displayResultsInWindow()
# outputResultsToFile()
# outputResultsToImage()
# storeOutputImageOnDisk()
# outputResultsToCsvFile()
# outputResultsToCsvFile()
# outputSpatialEntitiesToCsvFile()
# outputAveragedMeasuresTo
CsvFile()
# outputResultsToXMLFile()
# outputResultsToXMLFile()
# addSpatialEntitiesToPropertyTree()
# addAverageMeasuresToPropertyTree()
# constructPropertyTree()
# addSpatialEntityProperties
ToTree()
# addSpatialEntityTypeToPropertyTree()
# getCollectionOfSpatialEntity
Pseudo3D()
# processImageAndDetect()
# clearPreviousDetectionResults()
# createTrackbars()
# createTrackbarsWindow()
# createDetectorSpecificTrackbars()
# processPressedKeyRequest()
# displayImage()
# printOutputErrorMessage()
                 Д
 multiscale::analysis
          ::RegionDetector
 - alpha
 - beta
 - blurKernelSize

    morphologicalCloseIterations

 - epsilon
 - regionAreaThresh
 - thresholdValue

    regions

 TRACKBAR_ALPHA
 - TRACKBAR_BETA
 TRACKBAR_KERNEL
 - TRACKBAR_MORPH
  TRACKBAR CANNY
  TRACKBAR_EPSILON
  TRACKBAR_REGION_AREA
  THRESH
  TRACKBAR_THRESHOLD
 - USE CANNY
 - CONTOUR AREA ORIENTED
 - ALPHA_REAL_MIN
 - ALPHA_REAL_MAX

    BETA_REAL_MIN

 - BETA REAL MAX
 ALPHA_MAX
 - BETA_MAX
 KERNEL_MAX
 - MORPH_ITER_MAX
 CANNY_THRESH_MAX
 - EPSILON MAX
 - REGION_AREA_THRESH_MAX
  THRESHOLD_MAX
  THRESHOLD_CLUSTEREDNESS
 INTENSITY_MAX

    POLYGON_CLOSED

 DISPLAY_LINE_THICKNESS
 + RegionDetector()
 + ~RegionDetector()
 + getAlpha()
 + getBeta()
 + getBlurKernelSize()
 + getEpsilon()
 + getMorphologicalCloseIterations()
 + getOriginXCoordinate()
 + getOriginYCoordinate()
 + getRegionAreaThresh()
 + getThresholdValue()
 + getRegions()
 + setAlpha()
 + setBeta()
 + setBlurKernelSize()
 + setEpsilon()
 + setMorphologicalCloseIterations()
 + setOriginXCoordinate()
 + setOriginYCoordinate()
 + setRegionAreaThresh()
 + setThresholdValue()

    initialiseDetectorSpecific

 Fields()

    initialiseDetectorSpecific

 ImageDependentFields()

    createDetectorSpecificTrackbars()

    processImageAndDetect()

    changeContrastAndBrightness()

 smoothImage()

    morphologicalClose()

 thresholdImage()
 findRegions()
 computeAverageMeasures()

    computeAverageClusteredness

 Degree()

    computeAverageDensity()

    findContoursInImage()

 - createRegionFromPolygon()

    isValidRegion()

    regionClusterednessDegree()

 regionDensity()
 regionArea()
 - regionHolesArea()

    clearPreviousDetectionResults()

    getCollectionOfSpatialEntity

 Pseudo3D()
```

outputResultsToImage()

convertAlpha()convertBeta()