```
multiscale::analysis
             ::Detector
# image
# outputFilepath
# debugMode
# outputImage
# detectMethodCalled
# detectorSpecificFieldsInitialised
# origin
# ERR_OUTPUT_WITHOUT
 DETECT
#ERR OUTPUT FILE
# ERR_INVALID_IMAGE
#OUTPUT_EXTENSION
# IMG_EXTENSION
# WIN_OUTPUT_IMAGE
#KEY ESC
#KEY SAVE
+ 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()
# processImageAndDetect()
# clearPreviousDetectionResults()
# createTrackbars()
# createTrackbarsWindow()
# createDetectorSpecificTrackbars()
# processPressedKeyRequest()
# displayImage()
# printOutputErrorMessage()
                Д
multiscale::analysis
         ::RegionDetector

    avgClusterednessDegree

- alpha

    beta

    blurKernelSize

    morphologicalCloseIterations

    epsilon

    regionAreaThresh

    thresholdValue

    regions

    OUTPUT_CLUSTEREDNESS

    OUTPUT DENSITY

TRACKBAR_ALPHA
 TRACKBAR BETA
 TRACKBAR_KERNEL
TRACKBAR_MORPH
TRACKBAR_CANNY
TRACKBAR EPSILON
TRACKBAR_REGION_AREA
 THRESH
 TRACKBAR_THRESHOLD
- USE_CANNY_L2

    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()

isValidRegion()

regionDensity()regionArea()regionHolesArea()

CsvFile()

convertAlpha()convertBeta()

computeAverageMeasures()findContoursInImage()createRegionFromPolygon()

regionClusterednessDegree()

clearPreviousDetectionResults()
 outputResultsToCsvFile()
 outputRegionsToCsvFile()
 outputAveragedMeasuresTo

outputResultsToImage()