

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()  
# initialiseDetectorSpecificFieldsIfNotSet()  
# setDetectorSpecificFieldsInitialisationFlag()  
# initialiseDetectorSpecificFields()  
# initialiseImageDependentFields()  
# initialiseDetectorSpecificImageDependentFields()  
# initialiseImageOrigin()  
# isValidInputImage()  
# detect()  
# detectInDebugMode()  
# detectInReleaseMode()  
# polygonAngle()  
# polygonAngle()  
# minAreaRectCentre()  
# findGoodPointsForAngle()  
# findGoodIntersectionPoints()  
# displayResultsInWindow()  
# outputResultsToFile()  
# outputResultsToImage()  
# storeOutputImageOnDisk()  
# outputResultsToCsvFile()  
# outputResultsToCsvFile()  
# processImageAndDetect()  
# clearPreviousDetectionResults()  
# createTrackbars()  
# createTrackbarsWindow()  
# createDetectorSpecificTrackbars()  
# processPressedKeyRequest()  
# displayImage()  
# printOutputErrorMessage()



multiscale::analysis  
::ClusterDetector

# clusterednessIndex  
# avgPileUpDegree  
# entityPileupDegree  
# eps  
# minPoints  
# clusters  
- OUTPUT\_CLUSTEREDNESS  
- OUTPUT\_PILE\_UP  
- TRACKBAR\_EPS  
- TRACKBAR\_MINPOINTS  
- MIN\_POINTS\_MIN  
- MIN\_POINTS\_MAX  
- EPS\_MIN  
- EPS\_MAX  
- EPS\_REAL\_MIN  
- EPS\_REAL\_MAX

+ ClusterDetector()  
+ ~ClusterDetector()  
+ getEps()  
+ getMinPoints()  
+ getClusters()  
+ setEps()  
+ setMinPoints()  
# initialiseDetectorSpecificFields()  
# createDetectorSpecificTrackbars()  
# clearPreviousDetectionResults()  
# processImageAndDetect()  
# detectEntitiesInImage()  
# detectAndAnalyseClusters()  
# detectClusters()  
# convertEntities()  
# convertNonPiledUpEntities()  
# convertPiledUpEntities()  
# addEntitiesToClusters()  
# analyseClusters()  
# analyseClustersOriginDependentValues()  
# updateClusterOriginDependentValues()  
# getClusterConvexHull()  
# computeClusterednessIndex()  
# computeAveragePileUpDegree()  
# outputResultsToCsvFile()  
# convertEpsValue()  
# getValidMinPointsValue()



multiscale::analysis  
::SimulationClusterDetector

- thresholdedImage  
- height  
- width  
- entityHeight  
- entityWidth  
- THRESHOLD  
- THRESHOLD\_MAX  
- ENTITY\_THRESH  
- DATAPOINT\_WIDTH  
- DATAPOINT\_THICKNESS

+ SimulationClusterDetector()  
+ ~SimulationClusterDetector()  
- initialiseDetectorSpecificImageDependentFields()  
- initialiseThresholdedImage()  
- detectEntitiesInImage()  
- isEntityAtPosition()  
- getEntityCentrePoint()  
- getEntityContourPoints()  
- computePileUpDegreeAtPosition()  
- outputResultsToImage()  
- outputClusterToImage()  
- outputClusterShape()  
- outputClusterTriangularShape()  
- outputClusterRectangularShape()  
- outputClusterCircularShape()