## Tagger3D::ProcessObject

## Cluster

- # centroids :cv::Mat
- # labels :cv::Mat
- # loaded :bool
- loggerName :std::string = "Main.Cluster" {readOnly}
- # moduleName :std::string = "cluster" + sep... {readOnly}
- + Cluster(std::map<std::string, std::string>&)
- + ~Cluster()
- + cluster(cv::Mat&) :std::vector<int>
- + cluster(std::vector<cv::Mat>&) :std::vector<std::vector<int>>
- + getCentroids() :cv::Mat
- + getLabels() :cv::Mat
- + isLoaded() :bool
- + load() :bool
- + save() :bool
- + train(std::vector<cv::Mat>&) :bool
- + train(cv::Mat&) :bool

## KMeansCluster

- attempts :int
- attemptsKey :std::string = moduleName + "a... {readOnly}
- centroidIoName :std::string
- centroidIoNameKey :std::string = moduleName + "c... {readOnly}
- clusterCount :int
- clusterCountKey :std::string = "dictionarySize" {readOnly}
- criteriaEps :int
- criteriaEpsKey :std::string = moduleName + "c... {readOnly}
- criterialtr :int
- criterialtrKey :std::string = moduleName + "c... {readOnly}
- descriptorMatcher :cv::Ptr<cv::DescriptorMatcher>
- flags :int
- flagsKey :std::string = moduleName + "flags" {readOnly}
- ioFileFormat :std::string
- ioFileFormatKey :std::string = moduleName + "i... {readOnly}
- kMeans :std::unique\_ptr<cv::BOWKMeansTrainer>
- matcherType :std::string
- matcherTypeKey :std::string = moduleName + "m... {readOnly}
- + cluster(cv::Mat&) :std::vector<int>
- + cluster(std::vector<cv::Mat>&) :std::vector<std::vector<int>>
- createDescriptorMatcher() :bool
- createKMeans():bool
- + isLoaded():bool
- + KMeansCluster(std::map<std::string, std::string>&)
- + ~KMeansCluster()
- + load():bool
- + save() :bool
- + train(std::vector<cv::Mat>&) :bool
- + train(cv::Mat&) :bool