
SetCluster
- color: ColorCustom
- setsInCluster: vector
- minimumValues: vector
- meanValues: vector
- medianValues: vector
- maximumValues: vector
- size: int
- radius: double
- originalSet: int
- useMean: bool
- displayed: bool
- name: string
+ SetCluster()
+ SetCluster(ColorCustom &clusterColor)
+ SetCluster(ColorCustom &clusterColor, vector* newSetsInCluster)
+ SetCluster(ColorCustom &clusterColor, vector* newSetsInCluster, vector* dimensionsToCalculateWith)
+ getMinimumValue(int index)
+ getMeanValue(int index)
+ getMedianValue(int index)
+ getMaximumValue(int index)
+ getCenter()
+ addSet(nD point)
+ removeSet()
+ getSetNumber()
+ getIndexOfSet()
+ getMinimum()
+ getMiddle()
+ getMaximum()
+ calculateValues()
+ invertValues()
+ moveValues()
+ getSize()
+ getColor()
+ setColor()
+ setColor()
+ getRadius()
+ setRadius()
+ getOriginalSet()
+ setOriginalSet()
+ getName()
+ setName()
+ getSets()
+ isUseMean()
+ setUseMean()
+ isDisplayed()
+ setDisplayed()
+ getVirtualCenter()
+ getRatio()
1
1..*
DataNode
- originalData: double
- currentData: double
+ DataNode()
+ DataNode(double data)
+ getData(): double
+ getOriginalData(): double
+ setData(double newData)
+ setDataCurrent(double newData)
+ resetData()
+ multiplyData(double multiplier)
+ divideData(double divisor)
+ addToData(double addend)
1
0..*
Dimension
- data: vector-shiftAmount: double
- inverted: bool
- isDrawn: bool
- originalIndex: int
- useArtificialCalibration: bool
- artificialMaximum: double
- artificialMinimum: double
- name: string
+ Dimension()
+ Dimension(int index, int size)
+ getOriginalIndex(): int
+ setOriginalIndex(int newIndex): int
+ calibrateData(int style)
+ getData(int dataIndex): double
+ getCalibratedData(int dataIndex): double
+ getOriginalData(int dataIndex): double
+ getName(): string
+ setName(string* newName)
+ setData(int dataIndex, double newData)
+ deleteData(int dataIndex)
+ multiplyData(double multiplier)
+ divideData(double divisor)
+ addToData(double addend)
+ shiftDataBy(double modToShiftAmount)
+ getShift(): int
+ isInverted(): bool
+ invert() + size(): int
+ isArtificiallyCalibrated(): bool
+ clearArtificialCalibration(int style)
+ setCalibrationBounds(double newMaximum, double newMinimum, int style)
+ getArtificialMaximum(): double
+ getArtificialMinimum(): double
+ getMaximum(): double
+ getMinimum(): double
+ getAllData(): vector
+ isVisible(): bool
+ setVisibility(bool isDrawn)
1
0..*
DataSet
- setClass: int
- originalIndex: int
- currentIndex: int
- name: string
- visible: bool
+ DataSet()
+ DataSet(int setIndex, int classIndex)
+ getClass(): int
+ setDataClass(int newClass): int
+ getIndex(): int
+ setIndex(): int
+ getOriginalIndex(): int
+ getName(): string
+ setName(string name)
+ isVisible(): bool
+ setVisible(bool newVisible): bool
1
0..*
DataClass
- index: int
- color: ColorCustom
- name: string
- sets: vector
+ DataClass()
+ DataClass(int index, string name)
+ getIndex(): int
+ setIndex(int newIndex): int
+ getColor(): vector*
+ setColor(vector&newColor)
+ setColor(vector* newColor)
+ getName(): string*
+ getSetNumber(): int
+ getSetsInClass(): vector*
+ addSet(int setIndex)
+ removeSet(int setIndex)
1
1..*
DataInterface
- aboveOne: map
- overlaps: vector
- dimensionsHide: vector
- overlapMode: bool
- reOrderMode: bool = false
- shiftMode: bool = false
- invertMode: bool = false
- nominalSetsMode: bool - domNominalSetsMode: bool
- DNSRuleVisualizationMode: bool = false
- DNSHideCoordinatesMode: bool = false
- DNSSetLinesTransparentMode: bool = false
- DNSGreenBorderMode: bool = false
- histogramMode: bool - frequencyMode: bool
- quadMode: bool //===DNS Data===//
- purityPerc int - freqSmall int - transpLineThresh int
- DNSCompleteLines int - DNSLinesTransparent int
- DNSSmallLines int
- DNSNumSetsVisualized: int
- DNSnDPointsVisualized: int - DNSDimensionHover: int = -1
- DNSRulesGenerated: vector- DNSRulesByCoordinate: unordered_map- ruleData: vector>>
//============//
- combinationMode: int
- willCombine: bool
- thresholdMode: bool
- pureCubes: vector
- readSetNamesBasic: bool
- readDimensionNamesBasic: bool
- readClassNamesBasic: bool
- nominalColorChoice: int
- normalizationStyle: int
- dataDimensions: vector
- dataClasses: vector
- dataSets: vector
- backgroundColor: ColorCustom
- selectedSetColor: ColorCustom
- selectedSetIndex: int
- selectedClassIndex: int
- selectedClusterIndex: int
- selectedClusterClassIndex: int
- totalCubeCount: int
- overlappingCubeCount: int
- hypercubeThreshold: double
- hideSelectorLine: bool
- isDrawBorders: bool
- drawMin: bool
- drawCenter: bool
- drawMax: bool
// holds the clusters of the data
- clusters: vector- paintClusters: bool
- paintClassColors: bool - useMean: bool
- radius: double
- notes: vector- yMaxName: string
- yMinName: string
- xAxisName: string
- yAxisName: string
+ linguisticAddition: string = ""
- init()
- finalInit()
- readFileIntoVector()
- tokenizeString()
- removeDuplicates()
- readBasicFile()
- separateCluster()
- readCustomFile()
- parseLine()
- countCharacters()
- mergeSortAscending()
- mergeSortDescending()
- mergeSortOriginal()
+ DataInterface()
+ readFile()
+ saveToFile()
+ setReadSetNames()
+ setReadDimensionNames()
+ setReadClassNames()
+ isReadSetNames()
+ isReadDimensionNames()
+ isReadClassNames()
+ getClassAmount()
+ getSetAmount()
+ getDimensionAmount()
+ getDataDimensions()
+ invertDimension()
+ isDimensionInverted()
+ getData()
+ deleteSet()
+ getOriginalData()
+ setData()
+ moveData()
+ getDimensionName()
+ setDimensionName()
+ isArtificiallyCalibrated()
+ clearArtificialCalibration()
+ setCalibrationBounds()
+ getArtificialMaximum()
+ getArtificialMinimum()
+ addToDimension()
+ getClassName()
+ setClassName()
+ addClass()
+ deleteClass()
+ getSetAmount()
+ getSetsInClass()
+ getClassColor()
+ setClassColor()
+ getSetName()
+ setSetName()
+ getClassOfSet()
+ getSetOfClass()
+ setSetClass()
+ getSetColor()
+ isVisible()
+ setVisible()
+ setDimensionVisible()
+ isDimensionVisible()
+ getDimensionShift()
+ setDimensionShift()
+ getXAxisName()
+ getYAxisName()
+ getYMaxName()
+ getYMinName()
+ sortAscending()
+ sortDescending()
+ sortOriginal()
+ level()
+ getMean()
+ getMedian()
+ calibrateData()
+ zeroShifts()
+ getNoteTitle()
+ getNoteMessage()
+ getNoteX()
+ getNoteY()
+ getNoteAmount()
+ deleteNote()
+ hypercube()
+ subHypercube()
+ classHypercube()
+ isUseMeanForClusters()
+ getUseMeanForClusters()
+ setUseMeanForClusters()
+ getRadius()
+ setRadius()
+ incrementSelectedClusterClassIndex()
+ incrementSelectedSetIndex()
+ decrementSelectedSetIndex()
+ getSelectedSetIndex()
+ setSelectedSetIndex()
+ incrementSelectedClassIndex()
+ decrementSelectedClassIndex()
+ incrementSelectedSetIndexCluster()
+ decrementSelectedSetIndexCluster()
+ incrementSelectedClusterIndex()
+ decrementSelectedClusterIndex()
+ getTotalCubeCount()
+ getOverlappingCubeCount()
+ getSelectedClassIndex()
+ getSelectedClusterIndex()
+ setSelectedClusterIndex()
+ getSelectedClusterClassIndex()
+ setSelectedSetColor()
+ getSelectedSetColor()
+ xorClusters()
+ isPaintClusters()
+ isPaintClassColors()
+ togglePaintClusters()
+ togglePaintClassColors()
+ getClusterAmount()
+ getClusters()
+ getClusterMinimum()
+ getClusterMiddle()
+ getClusterMaximum()
+ getClusterColor()
+ setClusterColor()
+ deleteCluster()
+ getClusterName()
+ setDisplayed()
+ getDisplayed()
+ setClusterName()
+ getClusterSets()
+ setNominalColorChoice()
+ getNominalColor()
+ setNormalizationStyle()
+ getNormalizationStyle()
+ setBackgroundColor()
+ getBackgroundColor()
+ autoColor()
+ autoCluster()
+ highlightOverlap()
+ deleteEqualClusters()
+ combineAdjacentCubes()
+ setHypercubeThreshold()
+ getHypercubeThreshold()
+ selectorLineIsHidden()
+ hideSelector()
+ drawBorders()
+ setDrawBorders()
+ identicalCubes()
+ createAutoCube()
+ simpleAdjacencyOriginal()
+ simpleAdjacency()
+ sharedPointAdjacency()
+ hyperBlockAdjacency()
+ emptySpaceClusters()
+ emptySpacePureCubes()
+ cycleCombinationMode()
+ getCombinationMode()
+ isCombining()
+ setWillCombine()
+ isThresholdMode()
+ setThresholdMode()
+ toggleHistogramMode()
+ getHistogramMode()
+ setFrequencyMode()
+ getFrequencyMode()
+ getVisibleDimensionCount()
+ getVisibleBlockCount()
+ setQuadMode()
+ getQuadMode()
+ getPureCubes()
+ getClasses()
+ drawMinLine()
+ drawCenterLine()
+ drawMaxLine()
+ setDrawMin()
+ setDrawCenter()
+ setDrawMax()
+ findSubsetOfDimensions()
+ getLinguisticDescription()
+ domNominalSetLinguistic()
+ getOverlappingCount()
+ createOverlaps()
+ setOverlapMode()
+ getOverlapMode()
+ setReOrderMode()
+ getReOrderMode()
+ setShiftMode()
+ getInvertMode()
+ setInvertMode()
+ getShiftMode()
+ setNominalSetsMode()
+ getNominalSetsMode()
+ setDomNominalSetsMode()
+ getDomNominalSetsMode()
+ setDNSRuleVisualizationMode()
+ getDNSRuleVisualizationMode()
+ setDNSHideCoordinatesMode()
+ getDNSHideCoordinatesMode()
+ setDNSSetLinesTransparentMode()
+ getDNSSetLinesTransparentMode()
+ getDNSGreenBorderMode()
+ setDNSGreenBorderMode()
+ setPurityPerc()
+ getPurityPerc()
+ setTranspLineThresh()
+ getTranspLineThresh()
+ setDNSCompleteLines()
+ getDNSLinesTransparent()
+ setDNSLinesTransparent()
+ getDNSCompleteLines()
+ setDNSNumSmallLines()
+ getDNSNumSmallLines()
+ setDNSNumSetsVisualized()
+ getDNSNumSetsVisualized()
+ setDNSnDPointsVisualized()
+ getDNSnDPointsVisualized()
+ hideListedDimensionsDNS()
+ addDimensionToHideDNS()
+ dimensionInHideListDNS()
+ resetHideDimensionDataDNS()
+ setDNSRulesGenerated()
+ getDNSRulesGenerated()
+ setDimensionHover()
+ getDimensionHover()
+ getRuleData()
+ setDNSRulesByCoordinate()
+ getDNSRulesByCoordinate()
+ setFreqSmall()
+ getFreqSmall()
+ getOverlaps()
+ getImpurities()
+ getAboveOne()