package geco.parser v3.1

geco.parser.GecoParser
+ *static final String version*
+ *static final String release*
+ **void start()**
+ Environment getEnvironment()
+ ArrayList<String> getErrorList ()

geco.parser.Environment
+ public String getVersion ()
+ public String getRelease ()
+ List<Instruction> getInstructionList ()
+ int getNInstruction ()
+ List<Instruction> getInstructionListIgnoringErrors ()
+ List<String> getErrorList ()
+ boolean hasErrors()
+ boolean hasNoError()
+ List<String> getWarningList ()

package geco.model v3.1

---

abstract geco.model.Instruction

+ *static final int UNDEFINED*
+ *static final int GET_INSTRUCTION*
+ *static final int SET_INTERMEDIATE_INSTRUCTION*
+ *static final int SAVE_INSTRUCTION*
+ *static final int SPATIAL_JOIN_INSTRUCTION*
+ *static final int JOIN_INSTRUCTION*
+ *static final int FILTER_INSTRUCTION*
+ *static final int GROUP_INSTRUCTION*
+ *static final int EXPAND_INSTRUCTION*
+ *static final int MERGE_INSTRUCTION*
+ *static final int INTERSECT_INSTRUCTION*
+ *static final int SUBTRACT_INSTRUCTION*
+ *static final int USEDB_INSTRUCTION*
+ *static final int TRAJECTORY_MATCHING_INSTRUCTION*
+ *static final int FUZZY_OPERATOR_INSTRUCTION*
+ *static final int JAVASCRIPT_FUNCTION_INSTRUCTION*
+ int getId()
+ int getSeguence()
+ String getInstructionName()
+ String toString ()
+ *abstract* String toMultilineString ()

---

geco.model. Expand extends Instruction

+ *static int KEEP_OTHERS*
+ *static int DROP_OTHERS*
+ List<Unpack> unpacks
+ int others
+ String toMultilineString ()

---

geco.model. Filter extends Instruction

+ CaseClause caseClause
+ String toMultilineString ()

---

geco.model. GetCollection extends Instruction

+ DbCollection collection
+ String toMultilineString ()

---

geco.model. Group extends Instruction

+ *static int UNDEFINED*
+ *static int KEEP_OTHERS*
+ *static int DROP_OTHERS*
+ List<Partition> partitions
+ int others
+ String toMultilineString ()

---

geco.model. FuzzyOperator extends Instruction

+ String fuzzyOperator
+ List<Parameter> parameters
+ Condition preCondition
+ Expression evaluate
+ FuzzyRange range
+ List<FuzzyPoint> polyline
+ String toMultilineString ()

---

geco.model. Instruction

+ *static final int UNDEFINED*
+ *static final int GET_INSTRUCTION*
+ *static final int SET_INTERMEDIATE_INSTRUCTION*
+ *static final int SAVE_INSTRUCTION*
+ *static final int SPATIAL_JOIN_INSTRUCTION*
+ *static final int JOIN_INSTRUCTION*
+ *static final int FILTER_INSTRUCTION*
+ *static final int GROUP_INSTRUCTION*
+ *static final int EXPAND_INSTRUCTION*
+ *static final int MERGE_INSTRUCTION*
+ *static final int INTERSECT_INSTRUCTION*
+ *static final int SUBTRACT_INSTRUCTION*
+ *static final int USEDB_INSTRUCTION*
+ *static final int TRAJECTORY_MATCHING_INSTRUCTION*
+ *static final int FUZZY_OPERATOR_INSTRUCTION*
+ *static final int JAVASCRIPT_FUNCTION_INSTRUCTION*
+ String getInstructionName()
+ int getId()
+ int getSeguence()
+ String toMultilineString ()

---

geco.model. IntersectCollections extends Instruction

+ DbCollection collection1
+ DbCollection collection2
+ String toMultilineString ()

---

geco.model. MergeCollections extends Instruction

+ List <DbCollection> collectionList
+ boolean all
+ boolean mergeAll ()
+ String toMultilineString ()

---

geco.model. SaveAs extends Instruction

+ DbCollection collection
+ String toMultilineString ()

---

geco.model. JavascriptFunction extends Instruction

+ *static int NO_BEGIN*
+ *static int NO_END*
+ *static int WRONG_PAR*
+ *static int GOOD_END*
+ *static int BAD_END*
+ String functionName
+ List<Parameter> parameters
+ Condition preCondition
+ String body
+ int addJavascriptChunck (String t)
+ String toMultilineString ()

---

geco.model. JoinCollections extends Instruction

+ DbCollection collection1
+ DbCollection collection2
+ CaseClause caseClause
+ KeepDropFuzzySets keepDropFuzzySets
+ AddNewFuzzySets addNewFuzzySets
+ AddFields addFields
+ boolean hasCaseClause ()
+ boolean hasKeepDropFuzzySets ()
+ boolean hasAddNewFuzzySets ()
+ boolean hasAddFields ()
+ String toMultilineString ()

---

geco.model. SetIntermediateAs extends Instruction

+ DbCollection collection
+ String toMultilineString ()

---

geco.model. SubtractCollections extends Instruction

+ DbCollection collection1
+ DbCollection collection2
+ String toMultilineString ()

---

geco.model. TrajectoryMatching extends Instruction

+ *static int UNDEFINED*
+ *static int KEEP_OTHERS*
+ *static int DROP_OTHERS*
+ DbCollection collection1
+ DbCollection collection2
+ List<TrajectoryPartition> partitions
+ int others
+ String toMultilineString ()

---

geco.model. SpatialJoin extends Instruction

+ *static int GEOMETRY_UNDEFINED*
+ *static int GEOMETRY_ALL*
+ *static int GEOMETRY_RIGHT*
+ *static int GEOMETRY_LEFT*
+ *static int GEOMETRY_INTERSECTION*
+ DbCollection collection1
+ DbCollection collection2
+ NonFuzzyFunction on
+ int geometry
+ CaseClause caseClause
+ KeepDropFuzzySets keepDropFuzzySets
+ AddNewFuzzySets addNewFuzzySets
+ AddFields addFields
+ boolean hasCondition ()
+ boolean hasCaseClause ()
+ boolean hasKeepDropFuzzySets ()
+ boolean hasAddNewFuzzySets ()
+ boolean hasAddFields ()
+ String toMultilineString ()

---

geco.model. UseDb extends Instruction

+ *static int UNDEFINED*
+ *static int DEFAULT*
+ *static int SERVER*
+ *static int SERVER_CONNECTED*
+ List<DbName> dbList
+ String server
+ String connectionString
+ int type
+ boolean isDefault ()
+ boolean hasServer ()
+ boolean hasConnectionString ()
+ String toMultilineString ()

package geco.model.util v3.1   *1st part*

---

geco.model.util. Condition

+ *static int UNDEFINED*
+ *static int SIMPLE_CONDITION*
+ *static int NOT_CONDITION*
+ *static int AND_CONDITION*
+ *static int OR_CONDITION*
+ *static int PREDICATE_CONDITION*
+ Predicate predicate
+ int type
+ String toMultilineString (int level)

---

geco.model.util. ConditionAnd extends Condition

+ List< Condition> conditions
+ String toMultilineString (int level)

---

geco.model.util. ConditionNot extends Condition

+ Condition condition
+ String toMultilineString (int level)

---

geco.model.util. ConditionOr extends Condition

+ List<Condition> conditions
+ String toMultilineString (int level)

---

geco.model.util. Value

+ *static final int INT*
+ *static final int FLOAT*
+ *static final int APEX*
+ *static final int QUOTED*
+ *static final int BOOLEAN*
+ String value
+ int type
+ boolean isInt ()
+ boolean isFloat ()
+ boolean isQuoted ()
+ boolean isApex ()
+ boolean isBoolean ()

---

geco.model.util. Field

+ List<String> fields
+ Value value
+ Token positionToken
+ boolean sameTo (Field fn)
+ boolean equals (Field fn)
+ boolean contains (Field fn)
+ boolean isContained (Field fn)
+ boolean hasValue ()
+ int size ( )

---

geco.model.util. Predicate

+ *static final int UNDEFINED*
+ *static final int WITH_PREDICATE*
+ *static final int WITHOUT_PREDICATE*
+ *static final int EXPRESSION_PREDICATE*
+ *static final int COMPARISON_PREDICATE*
+ *static final int COMPARE_PREDICATE*
+ *static final int IFFAILS_PREDICATE*
+ *static final int OVERLAP_PREDICATE*
+ *static final int INSIDE_PREDICATE*
+ *static final int HOWMEET_PREDICATE*
+ *static final int DIRECTION_PREDICATE*
+ *static final int AREA_PREDICATE*
+ *static final int PERIMETER_PREDICATE*
+ *static final int WITHIN_PREDICATE*
+ *static final int KNOWN_PREDICATE*
+ *static final int UNKNOWN_PREDICATE*
+ *static final int IFF_OPERATOR_PREDICATE*
+ *static final int SIMPLE*
+ *static final int COMPLEX*
+ *static final int ARRAY*
+ *static final int STRING*
+ *static final int NUMBER*
+ *static final int INTEGER*
+ *static final int FLOAT*
+ *static final int GEOMETRY*
+ *static final String EQ*
+ *static final String NEQ*
+ *static final String LT*
+ *static final String GT*
+ *static final String LE*
+ *static final String GE*
+ WithPredicate withPredicate
+ List<Field> withPredicateList
+ int withPredicateSelector
+ String withPredicateSelectorStr
+ WithoutPredicate withoutPredicate
+ List<Field> withoutPredicateList
+ Expression expression1
+ Expression expression2
+ String comparator
+ IfFails ifFails
+ String predicateName
+ String predicateParameter1
+ String predicateParameter2
+ List<String> fuzzySets
+ List<String> withinFuzzySets
+ List<String> knownFuzzySets
+ List<String> unknownFuzzySets
+ ExpressionFactor iffOperator
+ int type
+ String toMultilineString (int level)

---

geco.model.util. Expression

+ List<ExpressionTerm> terms
+ List<String> operators

---

geco.model.util. ExpressionTerm

+ List<ExpressionFactor> factors
+ List<String> operators

---

geco.model.util. ExpressionFactor

+ *static final int UNDEFINED*
+ *static final int VALUE*
+ *static final int SUBCONDITION*
+ *static final int FUNCTION*
+ *static final int ID*
+ *static final int FIELDNAME*
+ int type
+ String id
+ Condition condition
+ Field field
+ Value value
+ String function
+ List<Expression> functionParams

---

geco.model.util. WithPredicate

+ *static final int UNDEFINED*
+ *static final int SIMPLE*
+ *static final int COMPLEX*
+ *static final int ARRAY*
+ *static final int STRING*
+ *static final int NUMBER*
+ *static final int INTEGER*
+ *static final int FLOAT*
+ *static final int GEOMETRY*
+ List<Field> fieldRefs
+ int getTypeSelector ()
+ String toMultilineString (int level)

---

geco.model.util. WithoutPredicate

+ List<Field> fieldRefs
+ String toMultilineString (int level)

package geco.model.util v3.1　　　　　　　　　　*2nd part*

geco.model.util. CaseClause

+ *static final int UNDEFINED*
+ *static final int KEEP_TYPE*
+ *static final int DROP_TYPE*
+ *static final String KEEP*
+ *static final String DROP*
+ List<WhereCase> whereList
+ String others
+ int othersType

+ String toMultilineString (int level)

geco.model.util. DbCollection

+ String db
+ String collection
+ String alias

+ String getDbCollectionString ()
+ boolean equals (DbCollection dc)
+ boolean hasDbName ()
+ boolean hasAlias ()

geco.model.util. Parameter

+ String var
+ String type
---

geco.model.util. DbName

+ String db
+ String alias
---

geco.model.util. WhereCase

+ Condition condition
+ GenerateAction generateAction
+ List<FuzzyCheck> fuzzyChecks
+ List<AlphaCut> alphaCuts
+ KeepingDroppingFuzzySets keepDropFuzzySets

+ boolean hasGenerateAction ()
+ boolean hasFuzzyCheck ()
+ boolean hasAlphaCut ()
+ boolean hasKeepDropFuzzySets()
+ String toMultilineString (int level)

geco.model.util. GenerateAction

+ *static final int UNDEFINED*
+ *static final int GA_COMPLETE*
+ *static final int GENERATE_ACTION_COMPLETE*
+ *static final int ONLY_OBJECT_STRUCTURE*
+ *static final int ONLY_GEOMETRIC_OPTION*
+ *static final int COUNT_OPTION*
+ ObjectStructure objectStructure
+ GeometricOption geometricOption
+ Field countOption

+ int getGenerateActionType ()
+ boolean hasObjectStructure ()
+ boolean hasGeometricOption ()
+ boolean hasCount ()
+ boolean isComplete ()
+ String toMultilineString (int level)

geco.model.util. GeometricOption

+ *static final int UNDEFINED*
+ *static final int KEEPING*
+ *static final int DROPPING*
+ *static final int POINT*
+ *static final int AGGREGATE*
+ *static final int FIELD_REF*
+ *static final int TO_POLYLINE*
+ Field latitude
+ Field longitude
+ Field fieldRef
+ Field aggregate

+ int getType ()
+ String toMultilineString(int level)

geco.model.util. Unpack

+ Condition where
+ Field array
+ String to
+ GenerateAction generate

+ boolean hasGenerateClause ()
+ String toMultilineString (int level)

geco.model.util. NonFuzzyFunction

+ *static final int UNDEFINED*
+ *static final int DISTANCE*
+ *static final int AREA*
+ *static final int ORIENTATION*
+ *static final int INCLUDED*
+ *static final int INCLUDED_LEFT*
+ *static final int INCLUDED_RIGHT*
+ *static final int MEET*
+ *static final int INTERSECT*
+ int type
+ String unit
+ String comparator
+ float area
+ float distance
+ String from
+ String orientation
+ float delta
+ String side
+ boolean fullDetails

+ String toMultilineString (int level)

geco.model.util. PartitionMatching

+ Field matching
+ Field wrt
+ String unit
+ double value
+ Condition whereCondition
+ Field into
+ Field pathToInput
+ double similarity

+ boolean hasWhereCondition ()
+ boolean hasPathToInput ()
+ boolean hasSimilarity ()
+ String toMultilineString(int level)

geco.model.util. ObjectStructure

+ List<OutputFieldSpec> outputList

+ String toMultilineString(int level)

geco.model.util. OutputFieldSpec

+ *static final int UNDEFINED*
+ *static final int FIELD_REF*
+ *static final int VALUE_FIELD_REF*
+ *static final int VALUE_CONSTANT*
+ *static final int VALUE_OBJECT_STRUCTURE*
+ Field fieldRef
+ ObjectStructure valueObjectStructure
+ Field valueField
+ Value value
+ String id

+ int getOutputFieldSpecType ()

geco.model.util. Partition

+ Condition whereCondition
+ List<Field> by
+ Field into
+ List<SortField> sortedBy
+ GenerateAction generate
+ boolean dropGroupingFields

+ SortField addSortingField(Field fr)
+ boolean hasGenerateClause ()
+ boolean hasDropGroupingFields ()
+ boolean isSortedBy ()
+ String toMultilineString (int level)

geco.model.util. SortField

+ *static int UNDEFINED*
+ *static int ASCENDING*
+ *static int DESCENDING*
+ Field field
+ int versus
+ String versusStr
---

geco.model.util. TrajectoryPartition

+ Condition selectionCondition
+ List<PartitionMatching> matchings

+ String toMultilineString(int level)

package geco.fuzzy v3.1

---

geco.model.fuzzy. AddFields

+ List<NonFuzzyFunction> fieldList
+ List<Field> asList

---

geco.model.fuzzy. AddNewFuzzySets

+ List<FuzzySetReference> fuzzySetReferenceList
+ String toMultilineString (int level)

---

geco.model.fuzzy. AlphaCut

+ String alphacut
+ String on

---

geco.model.fuzzy. FuzzyCheck

+ String fuzzySet
+ Condition using
+ String toMultilineString(int level)

---

geco.model.fuzzy. FuzzyPoint

+ String x
+ String y
+ double getXvalue ()
+ double getYvalue ()

---

geco.model.fuzzy. FuzzyRange

+ String x1
+ String x2
+ double getX1value ()
+ double getX2value ()

---

geco.model.fuzzy. FuzzySetReference

+ *static final int UNDEFINED*
+ *static final int FUZZYSET*
+ *static final int LEFT_FUZZYSET*
+ *static final int RIGHT_FUZZYSET*
+ *static final int HOWMEET*
+ *static final int INSIDE*
+ *static final int OVERLAP*
+ *static final int ALL_PARAMETER*
+ *static final int LEFT_PARAMETER*
+ *static final int RIGHT_PARAMETER*
+ int type
+ int parameterType
+ String fuzzySet
+ String leftRight
+ String function
+ String parameter
+ String as
+ boolean hasAlias ()
+ boolean hasAs ()

---

geco.model.fuzzy. IfFails

+ String ifFailsValue
+ Condition ifFailsCondition

---

geco.model.fuzzy. KeepDropFuzzySets

+ *static final int UNDEFINED*
+ *static final int DROPPING*
+ *static final int KEEPING*
+ *static final int KEEP_ALL*
+ *static final int KEEP_LEFT*
+ *static final int KEEP_RIGHT*
+ int keepDropType
+ int keepType
+ boolean isKeeping ()
+ boolean isDropping ()
+ String toMultilineString (int level)

---

geco.model.fuzzy. KeepingDroppingFuzzySets

+ *static final int UNDEFINED*
+ *static final int DROPPING*
+ *static final int KEEPING*
+ *static final int DROPPING_ALL*
+ *static final int KEEPING_ALL*
+ List<String> fuzzySets
+ int type
+ String typeString