My Project

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Chapter 1

Class Documentation

1.1 Basics.Position Class Reference

Position Represents a 2D point, and has methods to operate with them.

Public Member Functions

- Position ()
- Position (int n)
- Position (int x, int y)
- Position (Position p)
- int getX ()
- int getY ()
- void setX (int x)
- void setY (int y)
- void setPos (int x, int y)
- Position mult (int m)
- Position div (int d)
- boolean inRange (Position topRight, Position botLeft)
- boolean isEqual (Position pos)
- String toString ()

Static Public Member Functions

- static Position subtract (Position pos1, Position pos2)
- static Position sum (Position pos1, Position pos2)
- static Position mul (Position pos1, int num)

Static Public Attributes

- static final Position **ZERO** = new Position(0)

  Default position. Origin.

1.1.1 Detailed Description

Position Represents a 2D point, and has methods to operate with them.

Author

gabriel

1.1.2 Constructor & Destructor Documentation

1.1.2.1 Position() [1/4]

```
Basics.Position.Position ( )
```

Default constructor

1.1.2.2 Position() [2/4]

```
Basics.Position.Position (
            int n )
```

Constructor with one parameter

Parameters

n	This number will be the x and y coordinates

1.1.2.3 Position() [3/4]

```
Basics.Position.Position (
            int x,
            int y )
```

Parameter given the two coordinates

Parameters

x	x coordinate
y	y coordinate

1.1.2.4 Position() [4/4]

```
Basics.Position.Position (
            Position p )
```

Copy constructor

Parameters

p	Position that will be copied

1.1.3 Member Function Documentation

1.1.3.1 subtract()

```
static Position Basics.Position.subtract (
            Position pos1,
            Position pos2 )  [static]
```

Static method to subtract position

Parameters

pos1	Minuend position
pos2	Subtrahend position

Returns

New position with the result of the operation

1.1.3.2 sum()

```
static Position Basics.Position.sum (
            Position pos1,
            Position pos2 )  [static]
```

Static method to sum positions

Parameters

pos1	Addend position
pos2	Addend position

Returns

New position with the result of the operation

1.1.3.3 mul()

```
static Position Basics.Position.mul (
            Position pos1,
            int num )  [static]
```

Static function to multiply a position with a number (integer)

Parameters

pos1	Position to be multiplied
num	Number that multiply the position

Returns

New position with the result of the operation

1.1.3.4 getX()

```
int Basics.Position.getX ( )
```

Getter of x

Returns

x coordinate

1.1.3.5 getY()

```
int Basics.Position.getY ( )
```

Getter of y

Returns

y coordinate

1.1.3.6 setX()

```
void Basics.Position.setX (
            int x )
```

Setter of x

Parameters

x	New x coordinate

1.1.3.7 setY()

```
void Basics.Position.setY (
            int y )
```

Setter of y

Parameters

y	New y coordinate

1.1.3.8 setPos()

```
void Basics.Position.setPos (
            int x,
            int y )
```

Setter for a position

Parameters

x	New x coordinate
y	New y coordinate

1.1.3.9 mult()

```
Position Basics.Position.mult (
            int m )
```

Multiplication of the position with a integer. Be careful, this method MODIFY the point.

Parameters

m	Number that multiply the position

Returns

This position multiplied

1.1.3.10 div()

```
Position Basics.Position.div (
            int d )
```

Division of the position with an integer Be careful, this method MODIFY the point.

Parameters

d	Number that divides the position

Returns

This position multiplied

1.1.3.11 inRange()

```
boolean Basics.Position.inRange (
            Position topRight,
            Position botLeft )
```

Checks if the point is "inside" the square made by the two corners given

Parameters

topRight	Top right corner of the "square", included
botLeft	Bottom left corner of the "square"

Returns

Returns true if the position is in the "square" and false in other case.

1.1.3.12 isEqual()

```
boolean Basics.Position.isEqual (
            Position pos )
```

Checks if two points have the same coordinates

Parameters

pos	Position to be compared

Returns

True if coordinates are the same, false if not

1.1.3.13 toString()

```
String Basics.Position.toString ( )
```

toString method for Position

Returns

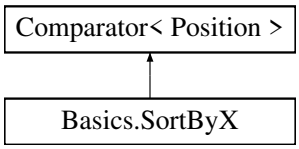
A string with format (x,y)

The documentation for this class was generated from the following file:

- src/Basics/Position.java

1.2 Basics.SortByX Class Reference

Inheritance diagram for Basics.SortByX:



Public Member Functions

- int **compare** (Position a, Position b)

1.2.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Basics/SortByX.java

1.3 Model.CityParameters Class Reference

Class containing parameters for inizalitation of cities.

Public Member Functions

- **CityParameters** (int s, int rd, int bd, int ps, int pp)
- int **getSize** ()
- int **getRoadDensity** ()
- int **getBuildingDensity** ()
- int **getParkSpreadness** ()
- int **getParksPercentage** ()

Static Public Attributes

- static final int **DEFAULTSIZE** = 200
- static final int **MINSIZE** = 10
- static final int **MAXSIZE** = 400
- static final int **NEIGHBORHOODSIZE** = 50
- static int **MINPERCENTAGEOFPARKS**
- static int **MAXPERCENTAGEOFPARKS**
- static final int **PERCENTAGERANGE** = 1
- static final int **DEFPARKSPARCENTAGE** = 7
- static final int **MINSEPARATIONOFROADS** = 4
- static final int **MINROADDENSITY** = 1
- static final int **DEFROADDENSITY** = 20
- static final int **MAXROADDENSITY** = 50
- static final int **MINBUILDINGDENSITY** = 10
- static final int **DEFBUILDINGDENSITY** = 70
- static final int **MAXBUILDINGDENSITY** = 100
- static final int **MAXBUILDINGSIZE** = MINSEPARATIONOFROADS $*$ 2
- static final int **MINBUILDINGSIZE** = MINSEPARATIONOFROADS / 2
- static int **DEFPARKSPREADNESS** = 1
- static int **MAXPARKSPREADNESS** = 1000
- static int **MINPARKSPREADNESS** = 1
- static int **STOPTRYSPAND** = 100

1.3.1 Detailed Description

Class containing parameters for inizalitation of cities.

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/CityParameters.java

1.4 Model.fitness.MoneyFunction Class Reference

Static Public Member Functions

- static double **Evaluate** (CityTileset city)

1.4.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/fitness/MoneyFunction.java

1.5 Model.fitness.PonderatedFunction Class Reference

Public Member Functions

- **PonderatedFunction** (int moneyPoneration)
- void **evaluate** (CityTilesetPopulation pop)

1.5.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/fitness/PonderatedFunction.java

1.6 Model.fitness.ValueFunction Class Reference

Static Public Member Functions

- static Double **Evaluate** (CityTileset city)

1.6.1 Detailed Description

Author

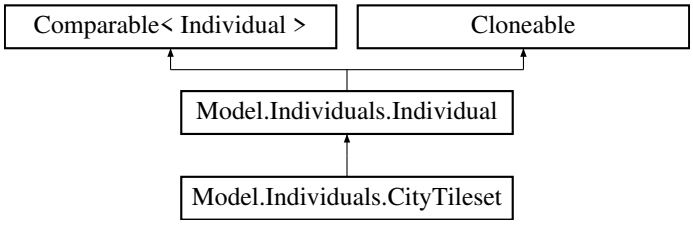
gabriel

The documentation for this class was generated from the following file:

- src/Model/fitness/ValueFunction.java

1.7 Model.Individuals.CityTileset Class Reference

Inheritance diagram for Model.Individuals.CityTileset:



Public Member Functions

- **CityTileset** (int size)
- **CityTileset** (CityTileset cp)
- **CityTileset** (ArrayList< ArrayList< Tile > > tiles)
- Position **getMaxPark** ()
- int **getDisponibleTiles** ()
- void **setDisponibleTiles** (int i)
- double **getPercentageOfParks** ()
- int **getFreeTiles** ()
- void **setFreeTiles** (int ft)
- int **getId** ()
- int **getNparkTiles** ()
- Position **getParkTile** (int i)
- List< Position > **getArrayOfParkPositions** ()
- Tile **getTile** (Position pos)
- Tile **getTile** (int x, int y)
- ArrayList< ArrayList< Tile > > **getTiles** (Position topLeft, Position botRight)
- ArrayList< ArrayList< Tile > > **getNeighborhoodTiles** (Position pos)
- void **setTiles** (Position topLeft, ArrayList< ArrayList< Tile > > tiles)
- int **getSize** ()
- int **getNNeighborhood** ()
- int **getNeighborhoodNParks** (Position pos)
- boolean **NewParkTile** (Position pos)
- boolean **NewParkTile** (Position pos, Position neighbour)
- int **getValueOfPark** (Position pos)
- void **removeParkTile** (Position pos)
- boolean **extendPark** (Position pos)
- void **NewBuildingTile** (Position pos)
- void **NewBuildingTile** (Position pos, Tile bt)
- boolean **canBuild** (Position pos)
- void **NewRoadTile** (Position pos)
- String toString ()

Public Member Functions inherited from Model.Individuals.Individual

- double **getFitness** ()
- void **setFitness** (double fitness)
- int **compareTo** (Individual other)
- Individual **clone** () throws CloneNotSupportedException

Additional Inherited Members

Protected Attributes inherited from Model.Individuals.Individual

- double **fitness**

1.7.1 Detailed Description

Author

Gabriel Sanchez

1.7.2 Member Function Documentation

1.7.2.1 toString()

```
String Model.Individuals.CityTileset.toString ( )
```

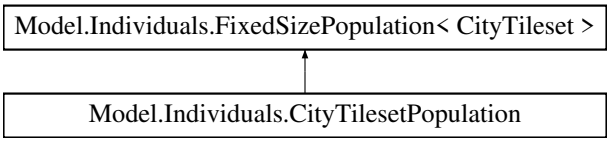
Reimplemented from Model.Individuals.Individual.

The documentation for this class was generated from the following file:

- src/Model/Individuals/CityTileset.java

1.8 Model.Individuals.CityTilesetPopulation Class Reference

Inheritance diagram for Model.Individuals.CityTilesetPopulation:



Public Member Functions

- **CityTilesetPopulation** (long id, int maxSize)
- int **getMaxParkValue** ()
- List< CityTileset > **sortPopulationByFitness** ()

Public Member Functions inherited from Model.Individuals.FixedSizePopulation< CityTileset >

- **FixedSizePopulation** (long id, int maxSize)
- int **getMaxSize** ()
- boolean **add** (T individual)

Additional Inherited Members

Static Public Attributes inherited from Model.Individuals.FixedSizePopulation< CityTileset >

- static final int **MAXSIZE**
- static final int **MINSIZE**

1.8.1 Detailed Description

Author

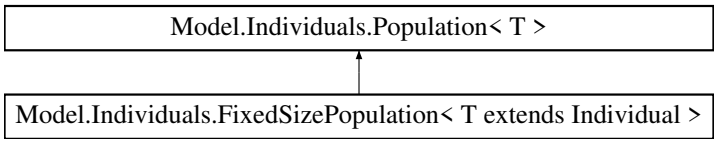
gabriel

The documentation for this class was generated from the following file:

- src/Model/Individuals/CityTilesetPopulation.java

1.9 Model.Individuals.FixedSizePopulation< T extends Individual > Class Template Reference

Inheritance diagram for Model.Individuals.FixedSizePopulation< T extends Individual >:



Public Member Functions

- **FixedSizePopulation** (long id, int maxSize)
- int **getMaxSize** ()
- boolean **add** (T individual)

Public Member Functions inherited from Model.Individuals.Population< T >

- **Population** (long id)
- **Population** (Population p)
- long **getId** ()
- void **setId** (long id)
- T **getBestIndividual** ()
- void **setBestIndividual** (T bestIndividual)
- double **getAverageFitness** ()
- ArrayList< T > **getArrayList** ()
- int **compareTo** (Population other)
- Population< T > **clone** ()
- boolean **equals** (Object o)
- int **hashCode** ()

Static Public Attributes

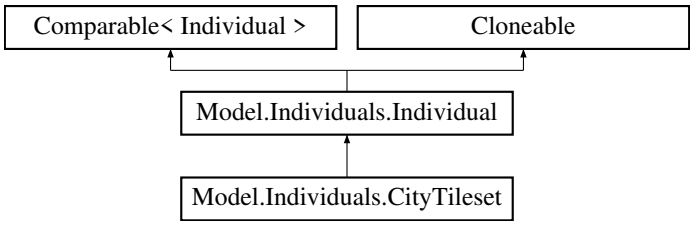
- static final int **MAXSIZE** = 500
- static final int **MINSIZE** = 2

The documentation for this class was generated from the following file:

- src/Model/Individuals/FixedSizePopulation.java

1.10 Model.Individuals.Individual Class Reference

Inheritance diagram for Model.Individuals.Individual:



Public Member Functions

- double **getFitness** ()
- void **setFitness** (double fitness)
- int **compareTo** (Individual other)
- Individual **clone** () throws CloneNotSupportedException
- String **toString** ()

Protected Attributes

- double **fitness**

The documentation for this class was generated from the following file:

- src/Model/Individuals/Individual.java

1.11 Model.Individuals.Neighborhood Class Reference

Static Public Attributes

- static final int **DEFAULTMAXPARKS** = Integer.MAX_VALUE

Protected Member Functions

- **Neighborhood** (int _maxParks, int _size)
- **Neighborhood** (Neighborhood cp)
- int **getTotalValue** ()
- void **setTotalValue** (int tv)
- void **setNParks** (int nparks)
- int **getNParks** ()
- int **getSize** ()
- boolean **addPark** (ParkTile p)
- boolean **canAddPark** ()
- boolean **deletePark** (ParkTile p)

1.11.1 Detailed Description

Author

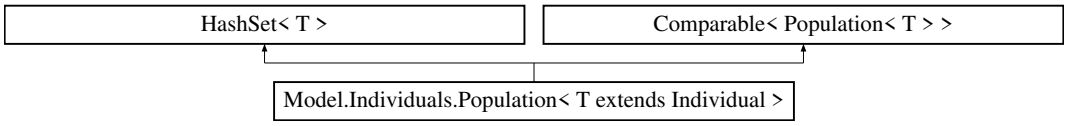
gabriel

The documentation for this class was generated from the following file:

- src/Model/Individuals/Neighborhood.java

1.12 Model.Individuals.Population< T extends Individual > Class Template Reference

Inheritance diagram for Model.Individuals.Population< T extends Individual >:



Public Member Functions

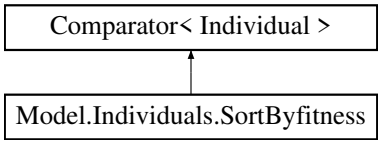
- **Population** (long id)
- **Population** (Population p)
- long **getId** ()
- void **setId** (long id)
- T **getBestIndividual** ()
- void **setBestIndividual** (T bestIndividual)
- double **getAverageFitness** ()
- ArrayList< T > **getArrayList** ()
- int **compareTo** (Population other)
- Population< T > **clone** ()
- boolean **equals** (Object o)
- int **hashCode** ()

The documentation for this class was generated from the following file:

- src/Model/Individuals/Population.java

1.13 Model.Individuals.SortByfitness Class Reference

Inheritance diagram for Model.Individuals.SortByfitness:



Public Member Functions

- int **compare** (Individual a, Individual b)

1.13.1 Detailed Description

Author

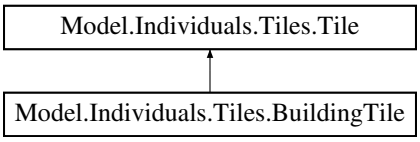
gabriel

The documentation for this class was generated from the following file:

- src/Model/Individuals/SortByfitness.java

1.14 Model.Individuals.Tiles.BuildingTile Class Reference

Inheritance diagram for Model.Individuals.Tiles.BuildingTile:



Public Member Functions

- **BuildingTile** (int nCitycents)
- BuildingTile makeCopy ()
- int **getCITIZENS** ()
- int getValue (TileType type)
- String toString ()

Public Member Functions inherited from Model.Individuals.Tiles.Tile

- int **getValue** ()
- boolean **isVoid** ()
- boolean **isBuilding** ()
- boolean **isPark** ()
- boolean **isRoad** ()
- boolean **canBuild** ()

Static Public Attributes

- static final int **MAXCITIZEN** = 100
- static final int **MINCITIZEN** = 5

Static Public Attributes inherited from Model.Individuals.Tiles.Tile

- static int **NOVALUETILE** = 0

1.14.1 Detailed Description

Author

gabriel

1.14.2 Member Function Documentation

1.14.2.1 makeCopy()

```
BuildingTile Model.Individuals.Tiles.BuildingTile.makeCopy ( )
```

Reimplemented from Model.Individuals.Tiles.Tile.

1.14.2.2 getValue()

```
int Model.Individuals.Tiles.BuildingTile.getValue (
            TileType type )
```

Reimplemented from Model.Individuals.Tiles.Tile.

1.14.2.3 toString()

```
String Model.Individuals.Tiles.BuildingTile.toString ( )
```

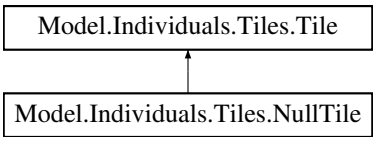
Reimplemented from Model.Individuals.Tiles.Tile.

The documentation for this class was generated from the following file:

- src/Model/Individuals/Tiles/BuildingTile.java

1.15 Model.Individuals.Tiles.NullTile Class Reference

Inheritance diagram for Model.Individuals.Tiles.NullTile:



Public Member Functions

- NullTile makeCopy ()
- int getValue (TileType t)
- String toString ()

Public Member Functions inherited from Model.Individuals.Tiles.Tile

- int **getValue** ()
- boolean **isVoid** ()
- boolean **isBuilding** ()
- boolean **isPark** ()
- boolean **isRoad** ()
- boolean **canBuild** ()

Additional Inherited Members

Static Public Attributes inherited from Model.Individuals.Tiles.Tile

- static int **NOVALUETILE** = 0

1.15.1 Detailed Description

Author

gabriel

1.15.2 Member Function Documentation

1.15.2.1 makeCopy()

```
NullTile Model.Individuals.Tiles.NullTile.makeCopy ( )
```

Reimplemented from Model.Individuals.Tiles.Tile.

1.15.2.2 getValue()

```
int Model.Individuals.Tiles.NullTile.getValue (
            TileType t )
```

Reimplemented from Model.Individuals.Tiles.Tile.

1.15.2.3 toString()

```
String Model.Individuals.Tiles.NullTile.toString ( )
```

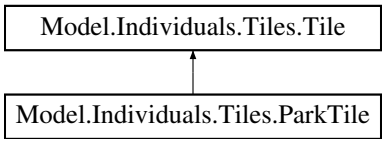
Reimplemented from Model.Individuals.Tiles.Tile.

The documentation for this class was generated from the following file:

- src/Model/Individuals/Tiles/NullTile.java

1.16 Model.Individuals.Tiles.ParkTile Class Reference

Inheritance diagram for Model.Individuals.Tiles.ParkTile:



Public Member Functions

- **ParkTile** (int v)
- ParkTile makeCopy ()
- int getValue (TileType type)
- void **addValue** (int v)
- String toString ()

Public Member Functions inherited from Model.Individuals.Tiles.Tile

- int **getValue** ()
- boolean **isVoid** ()
- boolean **isBuilding** ()
- boolean **isPark** ()
- boolean **isRoad** ()
- boolean **canBuild** ()

Static Public Member Functions

- static int **getAreaOfEffect** ()

Additional Inherited Members

Static Public Attributes inherited from Model.Individuals.Tiles.Tile

- static int **NOVALUETILE** = 0

1.16.1 Detailed Description

Author

gabriel

1.16.2 Member Function Documentation

1.16.2.1 makeCopy()

```
ParkTile Model.Individuals.Tiles.ParkTile.makeCopy ( )
```

Reimplemented from Model.Individuals.Tiles.Tile.

1.16.2.2 getValue()

```
int Model.Individuals.Tiles.ParkTile.getValue (
            TileType type )
```

Reimplemented from Model.Individuals.Tiles.Tile.

1.16.2.3 toString()

```
String Model.Individuals.Tiles.ParkTile.toString ( )
```

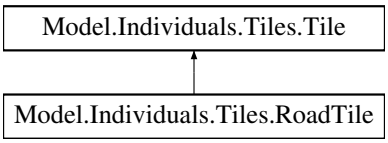
Reimplemented from Model.Individuals.Tiles.Tile.

The documentation for this class was generated from the following file:

- src/Model/Individuals/Tiles/ParkTile.java

1.17 Model.Individuals.Tiles.RoadTile Class Reference

Inheritance diagram for Model.Individuals.Tiles.RoadTile:



Public Member Functions

- RoadTile makeCopy ()
- int getValue (TileType type)
- String toString ()

Public Member Functions inherited from Model.Individuals.Tiles.Tile

- int **getValue** ()
- boolean **isVoid** ()
- boolean **isBuilding** ()
- boolean **isPark** ()
- boolean **isRoad** ()
- boolean **canBuild** ()

Additional Inherited Members

Static Public Attributes inherited from Model.Individuals.Tiles.Tile

- static int **NOVALUETILE** = 0

1.17.1 Detailed Description

Author

gabriel

1.17.2 Member Function Documentation

1.17.2.1 makeCopy()

```
RoadTile Model.Individuals.Tiles.RoadTile.makeCopy ( )
```

Reimplemented from Model.Individuals.Tiles.Tile.

1.17.2.2 getValue()

```
int Model.Individuals.Tiles.RoadTile.getValue (
            TileType type )
```

Reimplemented from Model.Individuals.Tiles.Tile.

1.17.2.3 toString()

```
String Model.Individuals.Tiles.RoadTile.toString ( )
```

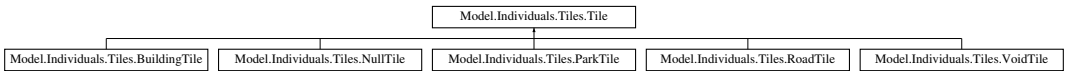
Reimplemented from Model.Individuals.Tiles.Tile.

The documentation for this class was generated from the following file:

- src/Model/Individuals/Tiles/RoadTile.java

1.18 Model.Individuals.Tiles.Tile Class Reference

Inheritance diagram for Model.Individuals.Tiles.Tile:



Public Member Functions

- abstract Tile **makeCopy** ()
- int **getValue** ()
- abstract int **getValue** (TileType type)
- boolean **isVoid** ()
- boolean **isBuilding** ()
- boolean **isPark** ()
- boolean **isRoad** ()
- boolean **canBuild** ()
- abstract String **toString** ()

Static Public Attributes

- static int **NOVALUETILE** = 0

1.18.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/Individuals/Tiles/Tile.java

1.19 Model.Individuals.Tiles.TileType Enum Reference

Public Attributes

- **BUILDING**
- **PARK**
- **ROAD**
- **VOID**

1.19.1 Detailed Description

Author

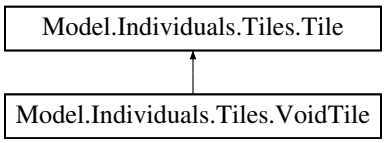
gabriel

The documentation for this enum was generated from the following file:

- src/Model/Individuals/Tiles/TileType.java

1.20 Model.Individuals.Tiles.VoidTile Class Reference

Inheritance diagram for Model.Individuals.Tiles.VoidTile:



Public Member Functions

- VoidTile makeCopy ()
- int getValue (TileType type)
- String toString ()

Public Member Functions inherited from Model.Individuals.Tiles.Tile

- int **getValue** ()
- boolean **isVoid** ()
- boolean **isBuilding** ()
- boolean **isPark** ()
- boolean **isRoad** ()
- boolean **canBuild** ()

Additional Inherited Members

Static Public Attributes inherited from Model.Individuals.Tiles.Tile

- static int **NOVALUETILE** = 0

1.20.1 Detailed Description

Author

gabriel

1.20.2 Member Function Documentation

1.20.2.1 makeCopy()

```
VoidTile Model.Individuals.Tiles.VoidTile.makeCopy ( )
```

Reimplemented from Model.Individuals.Tiles.Tile.

1.20.2.2 getValue()

```
int Model.Individuals.Tiles.VoidTile.getValue (
            TileType type )
```

Reimplemented from Model.Individuals.Tiles.Tile.

1.20.2.3 toString()

```
String Model.Individuals.Tiles.VoidTile.toString ( )
```

Reimplemented from Model.Individuals.Tiles.Tile.

The documentation for this class was generated from the following file:

- src/Model/Individuals/Tiles/VoidTile.java

1.21 Model.Inicializer.CloseToBuildingsParkInicializer Class Reference

Public Member Functions

- void **Inicialize** ()

1.21.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/Inicializer/CloseToBuildingsParkInicializer.java

1.22 Model.Inicializer.InicializerController Class Reference

Public Member Functions

- **InicializerController** (CityParameters _cp, ModelParameters _mp)
- CityTilesetPopulation **Inicialize** ()
- CityTilesetPopulation **InicializeCities** ()

1.22.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/Inicializer/InicializerController.java

1.23 Model.Inicializer.RandomCityInicializer Class Reference

Public Member Functions

- void **setCt** (CityTileset _ct)
- void **setNewBuildingProb** (double nbp)
- void **inicialize** (CityTileset _ct, int n_nodes)
- void **generateNodes** (int n_nodes)
- void **createBuildings** ()
- void **createBuildings** (int n_buildings, boolean type)
- void **createRoads** ()

1.23.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/Inicializer/RandomCityInicializer.java

1.24 Model.Inicializer.RandomParkInicializer Class Reference

Public Member Functions

- **RandomParkInicializer** (int spreadness)
- void **setSpreadness** (int sp)
- void **Inicialize** (CityTileset ct)

Public Attributes

- int **maxParks**
- int **minParks**

1.24.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/Inicializer/RandomParkInicializer.java

1.25 Model.ModelParameters Class Reference

Public Member Functions

- **ModelParameters** (int popSize, int moneyPond)
- int **getPOPULATIONSIZE** ()
- int **getMONEYPONDERATION** ()
- double **getCROSSOVERPROB** ()
- int **getCROSSOVERINTENSITY** ()
- boolean **getUSEELITISM** ()
- boolean **getUSETRUNCATE** ()
- double **getTRUNCATESIZE** ()

1.25.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/ModelParameters.java

1.26 Model.operators.crossover.CrossoverController Class Reference

Public Member Functions

- **CrossoverController** (ModelParameters mp)
- Population< CityTileset > **apply** (CityTilesetPopulation pop)

Static Public Attributes

- static int **REPETITIONS** = 2

1.26.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/operators/crossover/CrossoverController.java

1.27 Model.operators.crossover.CrossoverOperator< T extends Individual > Class Template Reference

Classes

- class **Pairing**

Protected Member Functions

- ArrayList< Pairing > **makeRandomPairings** (Population< T > population)

The documentation for this class was generated from the following file:

- src/Model/operators/crossover/CrossoverOperator.java

1.28 Model.operators.crossover.GeometricalCrossover Class Reference

Public Member Functions

- void **apply** ()

1.28.1 Detailed Description

Author

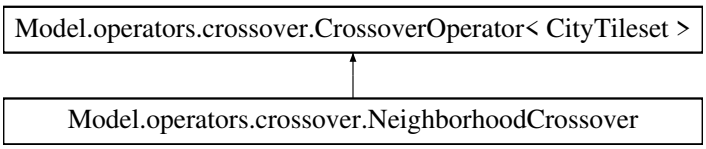
gabriel

The documentation for this class was generated from the following file:

- src/Model/operators/crossover/GeometricalCrossover.java

1.29 Model.operators.crossover.NeighborhoodCrossover Class Reference

Inheritance diagram for Model.operators.crossover.NeighborhoodCrossover:



Public Member Functions

- Population< CityTileset > **apply** (CityTilesetPopulation pop, Random generator)

Additional Inherited Members

Protected Member Functions inherited from Model.operators.crossover.CrossoverOperator< CityTileset >

- ArrayList< Pairing > **makeRandomPairings** (Population< T > population)

1.29.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/operators/crossover/NeighborhoodCrossover.java

1.30 Model.operators.mutation.MutationController Class Reference

Public Member Functions

- void **apply** (Population< CityTileset > pop)

1.30.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/operators/mutation/MutationController.java

1.31 Model.operators.mutation.NeighborhoodMutation Class Reference

1.31.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/operators/mutation/NeighborhoodMutation.java

1.32 Model.operators.mutation.ParkExpansionMutation Class Reference

1.32.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/operators/mutation/ParkExpansionMutation.java

1.33 Model.operators.mutation.RandomParkMutation Class Reference

Public Member Functions

- void **apply** (Population< CityTileset > pop)

1.33.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/operators/mutation/RandomParkMutation.java

1.34 Model.operators.selection.KWayTournamentSelection Class Reference

Public Member Functions

- void **apply** ()

1.34.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/operators/selection/KWayTournamentSelection.java

1.35 Model.operators.selection.RankSelection Class Reference

Public Member Functions

- Population< CityTileset > **apply** (CityTilesetPopulation pop, boolean useElitism, boolean truncate, Random generator, double truncateSize)

1.35.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/operators/selection/RankSelection.java

1.36 Model.operators.selection.SelectionController Class Reference

Public Member Functions

- **SelectionController** (ModelParameters mp)
- Population< CityTileset > **apply** (CityTilesetPopulation pop)

1.36.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/operators/selection/SelectionController.java

1.37 Model.ParksInCityGA Class Reference

Public Member Functions

- **ParksInCityGA** (CityParameters cp, ModelParameters mp)
- void **run** ()
- CityTilesetPopulation **getPopulation** ()
- void **applyCrossover** ()
- void **applyFitness** ()
- void **applySelection** ()
- Population **savePopulation** ()

1.37.1 Detailed Description

Author

gabriel

The documentation for this class was generated from the following file:

- src/Model/ParksInCityGA.java

1.38 parksincity_geneticalgorithms.ParksInCity_GeneticAlgorithms Class Reference

Static Public Member Functions

- static void main (String[ ] args)

1.38.1 Detailed Description

Author

gabriel

1.38.2 Member Function Documentation

1.38.2.1 main()

```
static void parksincity_geneticalgorithms.ParksInCity_GeneticAlgorithms.main (
            String[] args )  [static]
```

Parameters

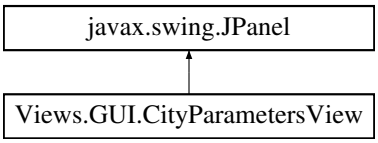
args	the command line arguments

The documentation for this class was generated from the following file:

- src/parksincity_geneticalgorithms/ParksInCity_GeneticAlgorithms.java

1.39 Views.GUI.CityParametersView Class Reference

Inheritance diagram for Views.GUI.CityParametersView:



Public Member Functions

- CityParametersView ()
- int **getCitySizeValue** ()
- int **getRoadDensity** ()
- int **getBuildingDensity** ()
- int **getParkSpreadness** ()
- int **getParksPercentage** ()

1.39.1 Detailed Description

Author

gabriel

1.39.2 Constructor & Destructor Documentation

1.39.2.1 CityParametersView()

```
Views.GUI.CityParametersView.CityParametersView ( )
```

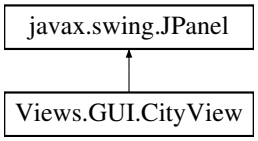
Creates new form CityParametersView

The documentation for this class was generated from the following file:

- src/Views/GUI/CityParametersView.java

1.40 Views.GUI.CityView Class Reference

Inheritance diagram for Views.GUI.CityView:



Public Member Functions

- CityTileset **getCt** ()
- BufferedImage **createCityImage** (CityTileset ct, int aumFactor)
- BufferedImage **createCityImage** (CityTileset ct)
- void **updateView** ()

1.40.1 Detailed Description

Author

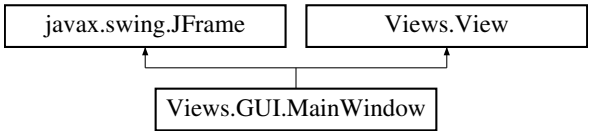
gabriel

The documentation for this class was generated from the following file:

- src/Views/GUI/CityView.java

1.41 Views.GUI.MainWindow Class Reference

Inheritance diagram for Views.GUI.MainWindow:



Public Member Functions

- void updateView ()
- void **setPopulationCT** (Population< CityTileset > p)
- void showView ()
- String getAppName ()

1.41.1 Detailed Description

Author

gabriel

1.41.2 Member Function Documentation

1.41.2.1 updateView()

```
void Views.GUI.MainWindow.updateView ( )
```

Implements Views.View.

1.41.2.2 showView()

```
void Views.GUI.MainWindow.showView ( )
```

Implements Views.View.

1.41.2.3 getAppName()

```
String Views.GUI.MainWindow.getAppName ( )
```

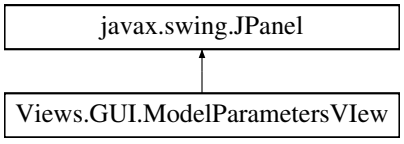
Implements Views.View.

The documentation for this class was generated from the following file:

- src/Views/GUI/MainWindow.java

1.42 Views.GUI.ModelParametersVIew Class Reference

Inheritance diagram for Views.GUI.ModelParametersVIew:



Public Member Functions

- ModelParametersVIew ()
- int **getPopSizeValue** ()
- int **getMoneyPonderationValue** ()

1.42.1 Detailed Description

Author

gabriel

1.42.2 Constructor & Destructor Documentation

1.42.2.1 ModelParametersVIew()

```
Views.GUI.ModelParametersVIew.ModelParametersVIew ( )
```

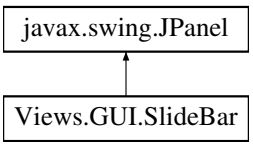
Creates new form ModelParametersVIew

The documentation for this class was generated from the following file:

- src/Views/GUI/ModelParametersVIew.java

1.43 Views.GUI.SlideBar Class Reference

Inheritance diagram for Views.GUI.SlideBar:



Public Member Functions

- SlideBar ()
- void **setLimits** (int max, int min)
- void **setDefault** (int def)
- int **getValue** ()

1.43.1 Detailed Description

Author

gabriel

1.43.2 Constructor & Destructor Documentation

1.43.2.1 SlideBar()

```
Views.GUI.SlideBar.SlideBar ( )
```

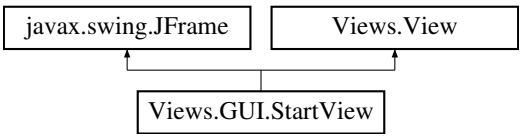
Creates new form prueba

The documentation for this class was generated from the following file:

- src/Views/GUI/SlideBar.java

1.44 Views.GUI.StartView Class Reference

Inheritance diagram for Views.GUI.StartView:



Public Member Functions

- StartView ()
- MainWindow **generateMainWindow** ()
- void updateView ()
- void showView ()
- String getAppName ()

1.44.1 Detailed Description

Author

gabriel

1.44.2 Constructor & Destructor Documentation

1.44.2.1 StartView()

```
Views.GUI.StartView.StartView ( )
```

Creates new form StartView

1.44.3 Member Function Documentation

1.44.3.1 updateView()

```
void Views.GUI.StartView.updateView ( )
```

Implements Views.View.

1.44.3.2 showView()

```
void Views.GUI.StartView.showView ( )
```

Implements Views.View.

1.44.3.3 getAppName()

```
String Views.GUI.StartView.getAppName ( )
```

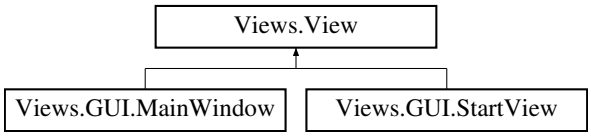
Implements Views.View.

The documentation for this class was generated from the following file:

- src/Views/GUI/StartView.java

1.45 Views.View Interface Reference

Inheritance diagram for Views.View:



Public Member Functions

- void **updateView** ()
- void **showView** ()
- String **getAppName** ()

1.45.1 Detailed Description

Author

Profe

The documentation for this interface was generated from the following file:

- src/Views/View.java

Chapter 2

File Documentation

2.1 src/Basics/Position.java File Reference

Classes

- class Basics.Position

  Position Represents a 2D point, and has methods to operate with them.

Index