

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

<i>n</i>	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

<i>x</i>	x coordinate
<i>y</i>	y coordinate

1.1.2.4 Position() [4/4]

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

Copy constructor

Parameters

<i>p</i>	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

<i>pos1</i>	Minuend position
<i>pos2</i>	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

<i>pos1</i>	Addend position
<i>pos2</i>	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

<i>pos1</i>	Position to be multiplied
<i>num</i>	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

<i>x</i>	New x coordinate
----------	------------------

1.1.3.7 setY()

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

Setter of y

Parameters

<i>y</i>	New y coordinate
----------	------------------

1.1.3.8 setPos()

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

Setter for a position

Parameters

<i>x</i>	New x coordinate
<i>y</i>	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

<i>m</i>	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

<i>d</i>	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

<i>topRight</i>	Top right corner of the "square", included
<i>botLeft</i>	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

<i>pos</i>	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

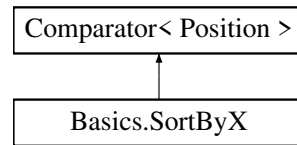
A string with format (x,y)

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 inizationaltion 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 inizationaltion 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

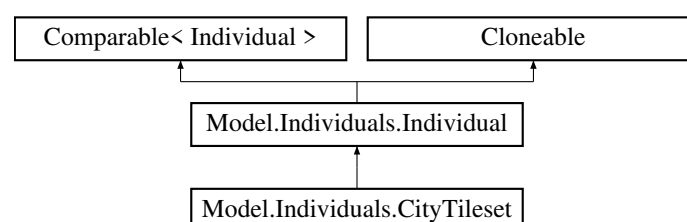
gabriel

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 ()`

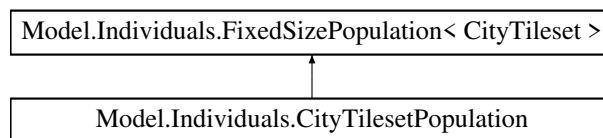
Reimplemented from [Model.Individuals.Individual](#).

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

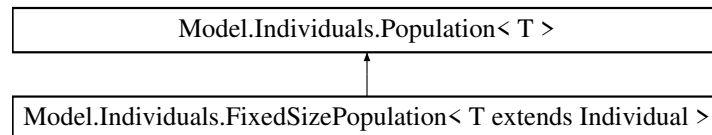
gabriel

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

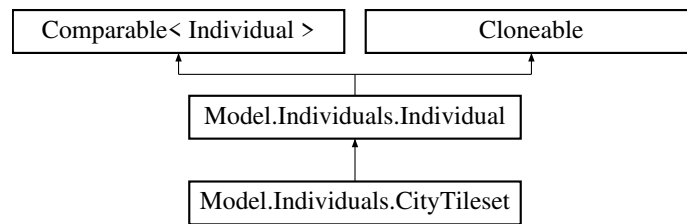
- static final int **MAXSIZE** = 500
- static final int **MINSIZE** = 2

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

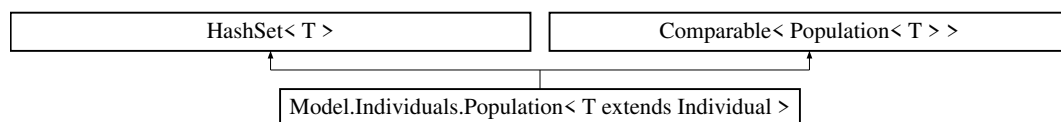
gabriel

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

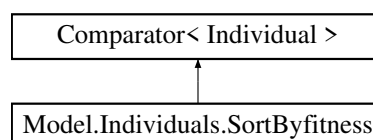
- **Population** (long id)
- **Population** ([Population](#) p)
- long **getId** ()
- void **setId** (long id)
- T **getBestIndividual** ()
- void **setBestIndividual** (T bestIndividual)
- double **getAverageFitness** ()
- ArrayList< T > **getArrayList** ()
- int **compareTo** ([Population](#) other)
- [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

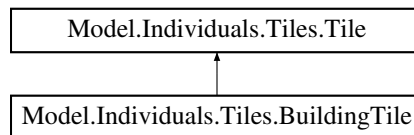
gabriel

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 ()`

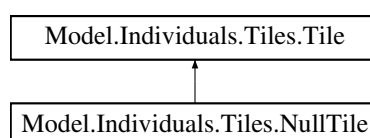
Reimplemented from [Model.Individuals.Tiles.Tile](#).

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 ( )
```

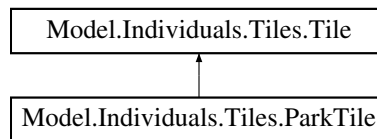
Reimplemented from [Model.Individuals.Tiles.Tile](#).

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 ( )
```

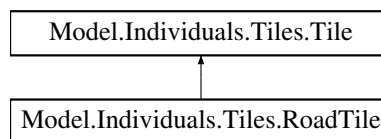
Reimplemented from [Model.Individuals.Tiles.Tile](#).

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 ()`

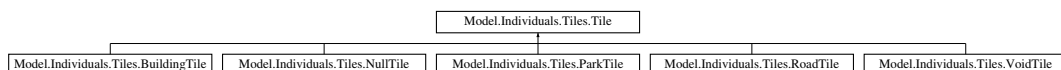
Reimplemented from [Model.Individuals.Tiles.Tile](#).

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

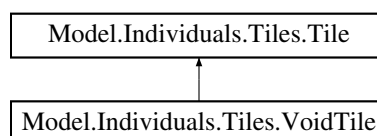
gabriel

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 **Initalize** ()

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 **Initalize** ()
- CityTilesetPopulation **InitalizeCities** ()

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 **initalize** (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

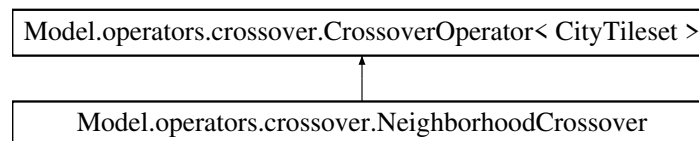
gabriel

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

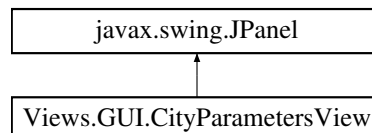
<i>args</i>	the command line arguments
-------------	----------------------------

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 ()`

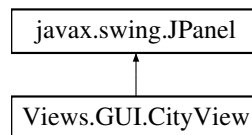
Creates new form CityParametersView

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

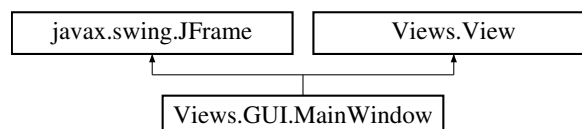
gabriel

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 ( )
```

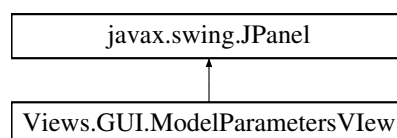
Implements [Views.View](#).

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 ModelParametersVlew()

```
Views.GUI.ModelParametersView.ModelParametersView ( )
```

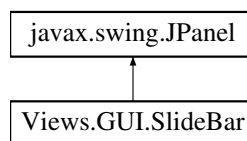
Creates new form ModelParametersVlew

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

- src/Views/GUI/ModelParametersVlew.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 ( )
```

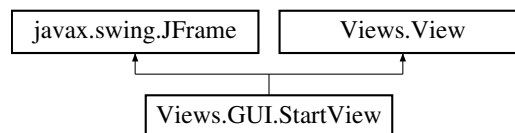
Creates new form prueba

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 ( )
```

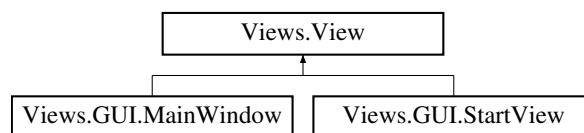
Implements [Views.View](#).

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.

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