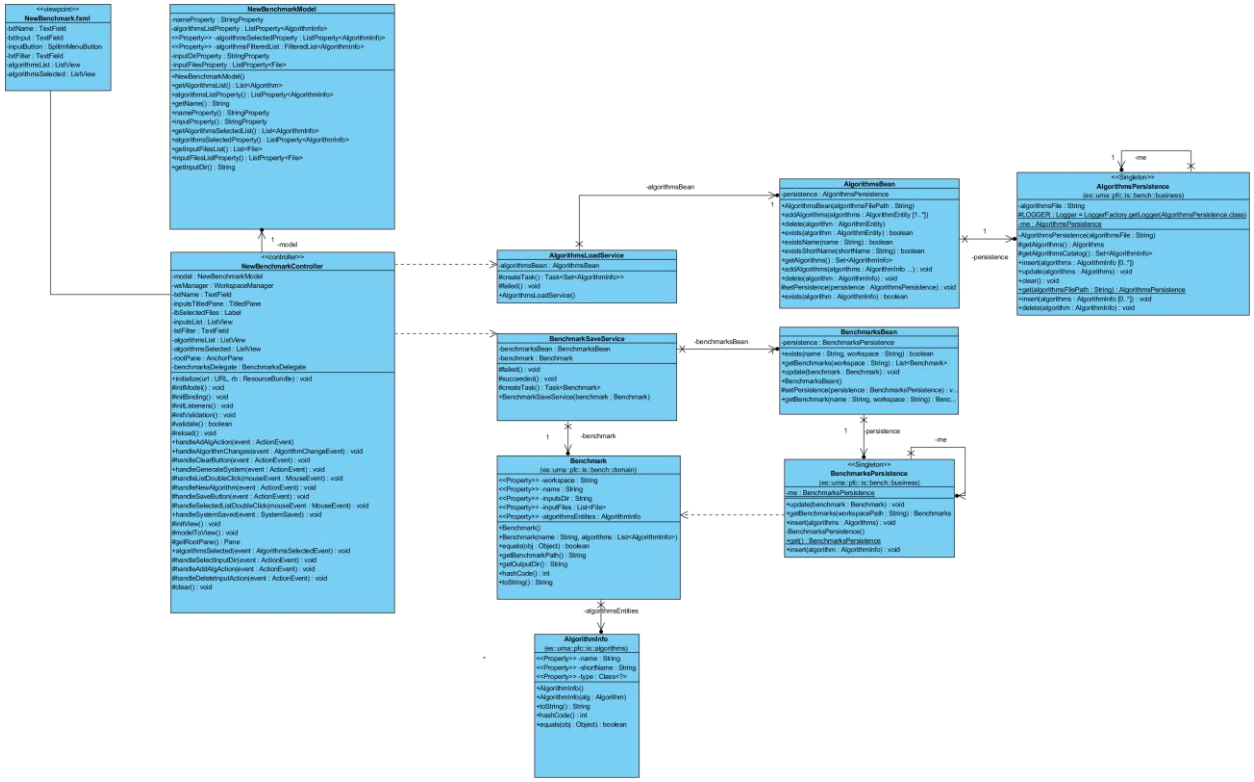
# Registrar Benchmark



# Summary

| Name | Description |
|---|---|
| NewBenchmark.fxml | New benchmark view. |
| NewBenchmarkModel | New Benchmark view model. |
| AlgorithmsPersistence | Persists the algorithms into an XML file entities using JAXB. |
| AlgorithmsBean | Business logic for insert, modify and delete algorithms. |
| AlgorithmsLoadService | Loads the algorithms declared in algorithms.properties file in the actual workspace. |
| NewBenchmarkController | NewBenchmark view Controller class. |
| BenchmarksBean | Business logic for insert, modify and delete algorithms. |
| BenchmarkSaveService | Service which saves benchmark changes. |
| Benchmark | Benchmark entity. |
| BenchmarksPersistence | Persist the benchmarks into an XML file entities using JAXB. |
| AlgorithmInfo | Entity with an algorithm attributes. |

# Description

Class diagram that shows the relation between the classes involved in the registry of benchmarks.

# Details

## NewBenchmark.fxml

| Name | Value |
|---|---|
| Description | New benchmark view. |
| Visibility | public |
| Stereotypes | viewpoint |

## Attributes

| private txtName : javafx.scene.control.TextField | | | |
|---|---|---|---|
| Description | Name field. | | |
| Type | javafx.scene.control.TextField | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private txtInput : javafx.scene.control.TextField | | | |
|---|---|---|---|
| Description | Absolute path of input implicational system file. | | |
| Type | javafx.scene.control.TextField | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private inputButton : javafx.scene.control.SplitmMenuButton | | | |
|---|---|---|---|
| Description | Button for select the input implicational system file.<br>It has two options: select the file or generate a random system. | | |
| Type | javafx.scene.control.SplitMenuButton | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private txtFilter : javafx.scene.control.TextField | | | |
|---|---|---|---|
| Description | Search algorithms field. | | |
| Type | javafx.scene.control.TextField | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private algorithmsList : javafx.scene.control.ListView | | | |
|---|---|---|---|
| Description | Registered algorithms list in the current workspace. | | |
| Type | javafx.scene.control.ListView | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private algorithmsSelected : javafx.scene.control.ListView | | | |
|---|---|---|---|
| Description | List which contains the selected algorithms from registered algorithms list. | | |
| Type | javafx.scene.control.ListView | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

# NewBenchmarkController

| Name | Value |
|---|---|
| Description | NewBenchmark view controller. |
| Visibility | public |
| Stereotypes | controller |

## Attributes

| private model : NewBenchmarkModel | | | |
|---|---|---|---|
| Description | Model. | | |
| Type | NewBenchmarkModel | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private txtName : javafx.scene.control.javafx.scene.control.TextField | | | |
|---|---|---|---|
| Description | Name field. | | |
| Type | javafx.scene.control.javafx.scene.control.TextField | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |
| Stereotypes | FXML | | |

| private inputsTitledPane : javafx.scene.control.TitledPane | | | |
|---|---|---|---|
| Description | Container of inputs implicational systems selected. | | |
| Type | javafx.scene.control.TitledPane | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |
| Stereotypes | FXML | | |

| private lbSelectedFiles : javafx.scene.control.Label | | | |
|---|---|---|---|
| Description | Label with selected files count. | | |
| Type | javafx.scene.control.Label | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |
| Stereotypes | FXML | | |

| private inputsList : javafx.scene.control.ListView | | | |
|---|---|---|---|
| Description | List of selected input files. | | |
| Type | javafx.scene.control.ListView | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |
| Stereotypes | FXML | | |

| private txtFilter : javafx.scene.control.javafx.scene.control.TextField | | | |
|---|---|---|---|
| Description | Algorithms filter. | | |
| Type | javafx.scene.control.javafx.scene.control.TextField | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |
| Stereotypes | FXML | | |

| private algorithmsList : javafx.scene.control.ListView | | | |
|---|---|---|---|
| Description | Available algorithms. | | |
| Type | javafx.scene.control.ListView | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |
| Stereotypes | FXML | | |

| private algorithmsSelected : javafx.scene.control.ListView | | | |
|---|---|---|---|
| Description | Algorithms selected. | | |
| Type | javafx.scene.control.ListView | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |
| Stereotypes | FXML | | |

| private rootPane : javafx.scene.layout.AnchorPane | | | |
|---|---|---|---|
| Description | Root pane. | | |
| Type | javafx.scene.layout.AnchorPane | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |
| Stereotypes | FXML | | |

| private wsManager: WorkspaceManager | | | |
|---|---|---|---|
| Description | Workspace manager. | | |
| Type |  WorkspaceManager | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private benchmarksDelegate : BenchmarksDelegate | | | |
|---|---|---|---|
| Description | Delegate for benchmarks business logic. | | |
| Type | BenchmarksDelegate | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

# Operations

| public initialize (url : java.net.URL, rb : java.util.ResourceBundle) : void | | |
|---|---|---|
| Parameters | **url** | |
| | Description | URL of the view. |
| | Multiplicity | 1 |
| | Type | java.net.URL |
| | Direction | inout |
| | **rb** | |
| | Description | Resource bundle. |
| | Multiplicity | 1 |
| | Type | java.util.ResourceBundle |
| | Direction | inout |
| Description | Initializes the controller class. | |

| protected initModel () : void | |
|---|---|
| Description | Initializes the model. |

| protected initBinding () : void | |
|---|---|
| Description | Initializes the binding between view components and the model. |

| protected initListeners () : void | |
|---|---|
| Description | Initializes the components view listeners. |

| protected initValidation () : void | |
|---|---|
| Description | Initializes the validation support. |

| protected initView () : void | |
|---|---|
| Description | Initializes the inputsList selection mode. |
| Exceptions | IOException |

| protected modelToView () : void | |
|---|---|
| Description | Load the algorithms list with algorihtms of the model. |

| protected validate () : boolean | |
|---|---|
| Description | Form validations. |
| Return Type Description | `true` if there is one algorithm selected at least, and the benchmark name not exists or user wants override it, and parent validations is succeeded. `False` otherwise. |

| protected reload () : void | |
|---|---|
| Description | Reloads the view and model. |

| public handleAlgorithmChanges (event : AlgorithmChangeEvent) : void | | |
|---|---|---|
| Parameters | **event** | |
| | Description | Event thrown when an algorithms is created or modified. |
| | Multiplicity | 1 |
| | Type | AlgorithmChangeEvent |
| | Direction | inout |
| Description | Handles the AlgorithmChangeEvent published by the Eventbus. Reloads the model and view. | |

| protected handleClearButton (event : javafx.event.ActionEvent) : void | | |
|---|---|---|
| Parameters | **event** | |
| | Description | Action event. |
| | Multiplicity | 1 |
| | Type | javafx.event.ActionEvent |
| | Direction | inout |
| Description | When the *Clear* button is pressed, the fields are cleared. | |
| Stereotypes | FXML | |

| **public handleGenerateSystem (event : javafx.event.ActionEvent) : void** | | |
|---|---|---|
| Parameters | **event** | |
| | Description | Event thrown when the *Random* option of *Input* button is pressed. |
| | Multiplicity | 1 |
| | Type | javafx.event.ActionEvent |
| | Direction | inout |
| Description | Shows the generator panel for generate a random system. | |
| Stereotypes | FXML | |

| **protected handleListDoubleClick (mouseEvent : javafx.scene.input.MouseEvent) : void** | | |
|---|---|---|
| Parameters | **mouseEvent** | |
| | Description | Mouse event. |
| | Multiplicity | 1 |
| | Type | javafx.scene.input.MouseEvent |
| | Direction | inout |
| Description | When there is a double click in algorithms list, the selection is added to algorithms selected. | |
| Stereotypes | FXML | |

| **protected handleNewAlgorithm (event : javafx.event.ActionEvent) : void** | | |
|---|---|---|
| Parameters | **event** | |
| | Description | Action event. |
| | Multiplicity | 1 |
| | Type | javafx.event.ActionEvent |
| | Direction | inout |
| Description | Handles the event thrown when *New Algorithm* button is pressed. | |
| Stereotypes | FXML | |

| **protected handleSaveButton (event : javafx.event.ActionEvent) : void** | | |
|---|---|---|
| Parameters | **event** | |
| | Description | Action event. |
| | Multiplicity | 1 |
| | Type | javafx.event.ActionEvent |
| | Direction | inout |
| Description | When the *Save* button is pressed, the current values are validated and saved. | |
| Stereotypes | FXML | |

| **protected handleSelectedListDoubleClick (mouseEvent : javafx.scene.input.MouseEvent) : void** | | |
|---|---|---|
| Parameters | **mouseEvent** | |
| | Description | Mouse event. |
| | Multiplicity | 1 |
| | Type | javafx.scene.input.MouseEvent |
| | Direction | inout |
| Description | When there is a double click in selected algorithms list, the selection is remove from algorithms selected. | |
| Stereotypes | FXML | |

| **public handleSystemSaved (event : SystemSaved) : void** | | |
|---|---|---|
| Parameters | **event** | |
| | Description | EventBus event. |
| | Multiplicity | 1 |
| | Type | SystemSaved |
| | Direction | inout |
| Description | Handles the `SystemSaved` event, copying the path of system into input field. | |

| **protected getRootPane () : javafx.scene.layout.Pane** | |
|---|---|
| Description | Root pane. |
| Return Type Description | Pane. |

| public algorithmsSelected (event : AlgorithmsSelectedEvent) : void | | |
|---|---|---|
| Parameters | **event** | |
| | Description | Event. |
| | Multiplicity | 1 |
| | Type | AlgorithmsSelectedEvent |
| | Direction | inout |
| Description | Handles the AlgorithmsSelectedEvent published by the Eventbus.<br>Adds all algorithms contained in the event to algorithms selected list. | |

| protected handleSelectInputDir (event : javafx.event.ActionEvent) : void | | |
|---|---|---|
| Parameters | **event** | |
| | Description | Event thrown when the File option of Select Input button is pressed. |
| | Multiplicity | 1 |
| | Type | javafx.event.ActionEvent |
| | Direction | inout |
| Description | Shows a file chooser for select the input system file. | |
| Stereotypes | FXML | |

| protected handleAddAlgAction (event : javafx.event.ActionEvent) : void | | |
|---|---|---|
| Parameters | **event** | |
| | Description | Event thrown when the *Add Algorithm* button is pressed. |
| | Multiplicity | 1 |
| | Type | javafx.event.ActionEvent |
| | Direction | inout |
| Description | When the *Add Algorithm* button is pressed, the *New Algorithm* window is shown. | |
| Stereotypes | FXML | |

| protected handleDeleteInputAction (event : javafx.event.ActionEvent) : void | | |
|---|---|---|
| Parameters | **event** | |
| | Description | Event thrown when the contextual menu *Delete* option is pressed. |
| | Multiplicity | 1 |
| | Type | javafx.event.ActionEvent |
| | Direction | inout |
| Description | Deletes the current selection in the inputs list. | |

| protected clear () : void | |
|---|---|
| Description | Clears all fields. |

# NewBenchmarkModel

| Name | Value |
|---|---|
| Description | New Benchmark view model. |
| Visibility | public |

## Attributes

| private nameProperty : javafx.beans.property.StringProperty | | | |
|---|---|---|---|
| Description | Name binding property. | | |
| Type | javafx.beans.property.StringProperty | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private algorithmsListProperty : javafx.beans.property.ListProperty | | | |
|---|---|---|---|
| Description | Algorithms list binding property. | | |
| Type | javafx.beans.property.ListProperty | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private algorithmsSelectedProperty : javafx.beans.property.ListProperty | | | |
|---|---|---|---|
| Description | Selected algorithms list binding property. | | |
| Type | javafx.beans.property.ListProperty | | |
| Getter | false | Setter | true |
| Multiplicity | 1 | | |

| private algorithmsFilteredList : javafx.collections.transformation.FilteredList | | | |
|---|---|---|---|
| Description | Algorithms filtered list. | | |
| Stereotypes | Property | | |
| Type | javafx.collections.transformation.FilteredList | | |
| Getter | true | Setter | false |
| Multiplicity | 1 | | |

| private inputDirProperty : javafx.beans.property.StringProperty | | | |
|---|---|---|---|
| Description | Input directory path binding property. | | |
| Type | javafx.beans.property.StringProperty | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private inputFilesProperty : javafx.beans.property.ListProperty | | | |
|---|---|---|---|
| Description | Input files list binding property. | | |
| Type | javafx.beans.property.ListProperty | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

# Operations

| public NewBenchmarkModel () | |
|---|---|
| Description | Constructor. |

| public nameProperty () : javafx.beans.property.StringProperty | |
|---|---|
| Description | Name. |
| Return Type Description | The name binding property. |

| public getName () : String | |
|---|---|
| Description | Gets the benchmark name from the nameProperty. |
| Return Type Description | Benchmark name. |

| public inputProperty () : javafx.beans.property.StringProperty | |
|---|---|
| Description | Input files directory binding property. |
| Return Type Description | Input files directory binding list property. |

| public getInputDir () : java.lang.String | |
|---|---|
| Description | Gets the input files directory path from the inputDirProperty binding property. |
| Return Type Description | Input files directory absolute path. |

| public inputFilesListProperty () : javafx.beans.property.ListProperty | |
|---|---|
| Description | Input files list binding property. |
| Return Type Description | Input files binding list property. |

| public getInputFilesList () : java.util.List | |
|---|---|
| Description | Gets the input files list from the inputFilesListProperty binding property. |
| Return Type Description | Algorithms list. |

| public algorithmsListProperty () : javafx.beans.property.ListProperty | |
|---|---|
| Description | Algorihtms list binding property. |
| Return Type Description | Algorithms list binding property. |

| public getAlgorithmsList () : java.util.List | |
|---|---|
| Description | Gets the algorithms list from the algorithmsListProperty binding property. |
| Return Type Description | Current workspace registered algorithms. |

| public algorithmsSelectedProperty () : javafx.beans.property.ListProperty | |
|---|---|
| Description | Algorithms list binding property. |
| Return Type Description | The algorithmsSelectedProperty. |

| public getAlgorithmsSelectedList () : java.util.List | |
|---|---|
| Description | Gets the selected algorithms list from the algorithmsSelectedProperty binding property. |
| Return Type Description | Selected algorithms. |

# AlgorithmsLoadService

| Name | Value |
|---|---|
| Description | Loads the algorithms declared in the algorithms.xml file in the actual workspace. |
| Visibility | public |

## Attributes

| private algorithmsBean : AlgorithmsBean | | | |
|---|---|---|---|
| Description | Algorithms logic. | | |
| Type | AlgorithmsBean | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

## Operations

| public AlgorithmsLoadService () | |
|---|---|
| Description | Constructor. |

| protected createTask () : javafx.concurrent.Task | |
|---|---|
| Description | Creates the background task which loads the registered algorithms. |
| Return Type Description | Algorithms info set. |

| protected failed () : void | |
|---|---|
| Description | This method is executed when the background task is completed with errors. |

# BenchmarkSaveService

| Name | Value |
|---|---|
| Description | Service which saves benchmark changes. |
| Visibility | public |

## Attributes

| private benchmarksBean : BenchmarksBean | | | |
|---|---|---|---|
| Description | Benchmarks logic. | | |
| Type | BenchmarksBean | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private benchmark : Benchmark | | | |
|---|---|---|---|
| Description | Benchmark to save. | | |
| Type | Benchmark | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

## Operations

| public BenchmarkSaveService (benchmark : Benchmark) | | |
|---|---|---|
| Parameters | benchmark | |
| | Description | Benchmark to save. |
| | Multiplicity | 1 |
| | Type | Benchmark |
| | Direction | inout |
| Description | Constructor. | |

| protected createTask () : javafx.concurrent.Task | |
|---|---|
| Description | Creates the background task which saves the benchmarks changes. |
| Return Type Description | Updated benchmark. |

| protected succeeded () : void | |
|---|---|
| Description | This method is executed when the background task is completed succesfully.<br>Publishes a BenchmarksChangeEvent and MessageEvent by the Eventbus. |

| protected failed () : void | |
|---|---|
| Description | This method is executed when the background task is completed with errors. |

# BenchmarksBean

| Name | Value |
|---|---|
| Description | Business logic for insert, modify and delete algorithms. |
| Visibility | public |

## Attributes

| private persistence : BenchmarksPersistence | | | |
|---|---|---|---|
| Description | Class for benchmarks persistence. | | |
| Type | BenchmarksPersistence | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

## Operations

| public BenchmarksBean () | |
|---|---|
| Description | Constructor. |

| protected setPersistence (persistence : BenchmarksPersistence) : void | | |
|---|---|---|
| Parameters | persistence | |
| | Multiplicity | 1 |
| | Type | BenchmarksPersistence |
| | Direction | inout |
| Description | For testing usage. | |

| public update (benchmark : Benchmark) : void | | |
|---|---|---|
| Parameters | **benchmark** | |
| | Description | Benchmark. |
| | Multiplicity | 1 |
| | Type | Benchmark |
| | Direction | inout |
| Description | Create the directory tree of benchmark. | |
| Exceptions | java.io.IOException | |

| public getBenchmarks (workspace : String) : java.util.List | | |
|---|---|---|
| Parameters | **workspace** | |
| | Description | Workspace path. |
| | Multiplicity | 1 |
| | Type | String |
| | Direction | inout |
| Description | Returns the workspace registered benchmarks. | |
| Return Type Description | Registered benchmarks. | |
| Exceptions | java.lang.Exception | |

| public getBenchmark (name : String, workspace : String) : Benchmark | | |
|---|---|---|
| Parameters | **name** | |
| | Description | Benchmark name. |
| | Multiplicity | 1 |
| | Type | String |
| | Direction | inout |
| | **workspace** | |
| | Description | Workspace path. |
| | Multiplicity | 1 |
| | Type | String |
| | Direction | inout |
| Description | Returns a benchmark registered in a workspace, null if no exists. | |

| | |
|---|---|
| Return Type Description | Algorithm Entities list. |
| Exceptions | java.lang.Exception |

| **public exists (name : String, workspace : String) : boolean** | | |
|---|---|---|
| Parameters | **name** | |
| | Description | Benchmark name. |
| | Multiplicity | 1 |
| | Type | String |
| | Direction | inout |
| | **workspace** | |
| | Description | Workspace path. |
| | Multiplicity | 1 |
| | Type | String |
| | Direction | inout |
| Description | If exists a benchmark with the name argument in a workspace. | |
| Return Type Description | `true` if exists a benchmark with the name argument, `false` otherwise. | |

# AlgorithmsBean

| Name | Value |
|---|---|
| Description | Business logic for insert, modify and delete algorithms. |
| Visibility | public |

## Attributes

| **private persistence : AlgorithmsPersistence** | | | |
|---|---|---|---|
| Description | Algorithms persistence. | | |
| Type | AlgorithmsPersistence | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

# Operations

| public AlgorithmsBean (algorithmsFilePath : String) | | |
|---|---|---|
| Parameters | algorithmsFilePath | |
| | Description | Workspace path. |
| | Multiplicity | 1 |
| | Type | String |
| | Direction | inout |
| Description | Constructor. | |

| protected setPersistence (persistence : AlgorithmsPersistence) : void | | |
|---|---|---|
| Parameters | persistence | |
| | Multiplicity | 1 |
| | Type | AlgorithmsPersistence |
| | Direction | inout |
| Description | For testing usage. | |

| public addAlgorithms (algorithms : AlgorithmInfo) | | |
|---|---|---|
| Parameters | algorithms | |
| | Description | Algorithms to add. |
| | Multiplicity | 0..* |
| | Type | AlgorithmInfo |
| | Direction | inout |
| Description | Updates the algorithms file adding new algorithms.<br>If any algorithms exists, this is overrided. | |

| public delete (algorithm : AlgorithmInfo) | | |
|---|---|---|
| Parameters | algorithm | |
| | Description | Algorithm |
| | Multiplicity | 1 |
| | Type | AlgorithmInfo |
| | Direction | inout |
| Description | Removes an algorithm from algorithms file. | |

| public exists (algorithm : AlgorithmInfo) : boolean | | |
|---|---|---|
| Parameters | **algorithm** | |
| | Description | Algorithm |
| | Multiplicity | 1 |
| | Type | AlgorithmInfo |
| | Direction | inout |
| Description | If an algorithm exists in algorithms file. | |

| public existsName (name : String) : boolean | | |
|---|---|---|
| Parameters | **name** | |
| | Description | Name. |
| | Multiplicity | 1 |
| | Type | String |
| | Direction | inout |
| Description | If exists an algorithm with the name argument. | |
| Return Type Description | `true` if exists an algorithm with the name argument exists in algorithms file, `false` otherwise. | |
| Query | false | |

| public existsShortName (shortName : String) : boolean | | |
|---|---|---|
| Parameters | **shortName** | |
| | Description | Short name. |
| | Multiplicity | 1 |
| | Type | String |
| | Direction | inout |
| Description | If exists an algorithm with the shortName argument as short name. | |
| Return Type Description | `true` if exists an algorithm with the shortName argument as short name exists in algorithms file, `false` otherwise. | |

# BenchmarksPersistence

| Name | Value |
|---|---|
| Description | Persist the benchmarks into an XML file entities using JAXB. |
| Visibility | public |
| Stereotypes | Singleton |

## Attributes

| private me : BenchmarksPersistence | | | |
|---|---|---|---|
| Description | Single instance. | | |
| Type | BenchmarksPersistence | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

## Operations

| private BenchmarksPersistence () | |
|---|---|
| Description | Private constructor. For get a BenchmarksPersistence instance, will must be usage the static get() method. |

| public get () : BenchmarksPersistence | |
|---|---|
| Description | Gets a single instance of BenchmarksPersistence. |
| Return Type Description | BenchmarksPersistence single instance. |

| public getBenchmarks (workspacePath : String) : Benchmarks | | |
|---|---|---|
| Parameters | workspacePath | |
| | Multiplicity | 1 |
| | Type | String |
| | Direction | inout |
| Description | Returns the registered benchmarks in a workspace. | |

| public update (benchmark : Benchmark) : void | | |
|---|---|---|
| Parameters | **benchmark** | |
| | Description | Algorithms. |
| | Multiplicity | 1 |
| | Type | Benchmark |
| | Direction | inout |
| Description | Initialize the benchmarks file with benchmarks parameter. | |

| public insert (algorithms : Algorithms) : void | | |
|---|---|---|
| Parameters | **algorithms** | |
| | Multiplicity | 1 |
| | Type | Algorithms |
| | Direction | inout |
| Description | Add the algorithms of  algorithms parameter to algorithms file. | |

| public insert (algorithm : AlgorithmInfo) : void | | |
|---|---|---|
| Parameters | **algorithm** | |
| | Description | Algorithm. |
| | Multiplicity | 1 |
| | Type | AlgorithmInfo |
| | Direction | inout |
| Description | Add an algorithm to algorithms file. | |

# AlgorithmsPersistence

| Name | Value |
|---|---|
| Description | Persists the algorithms into an XML file entities using JAXB. |
| Visibility | public |
| Stereotypes | Singleton |

# Attributes

| protected LOGGER : org.slf4j.Logger | | | |
|---|---|---|---|
| Initial Value | LoggerFactory.getLogger(AlgorithmsPersistence.class) | | |
| Type | org.slf4j.Logger | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private me : AlgorithmsPersistence | | | |
|---|---|---|---|
| Description | Single instance. | | |
| Type | AlgorithmsPersistence | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

| private algorithmsFile : String | | | |
|---|---|---|---|
| Description | Target file. | | |
| Type | String | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

# Operations

| private AlgorithmsPersistence (algorithmsFile : String) | | |
|---|---|---|
| Parameters | algorithmsFile | |
| | Multiplicity | 1 |
| | Type | String |
| | Direction | inout |
| Description | Private constructor. For get an AlgorithmsPersistence instance, will must be usage the static get() method. | |

| public get (algorithmsFilePath : String) : AlgorithmsPersistence | | |
|---|---|---|
| Parameters | algorithmsFilePath | |
| | Multiplicity | 1 |
| | Type | String |
| | Direction | inout |
| Description | Gets a single instance of AlgorithmsPersistence. | |
| Return Type Description | AlgorithmsPersistence single instance. | |

| protected getAlgorithms () : Algorithms | |
|---|---|
| Description | Gets an Algorithms entity from a file path. |
| Return Type Description | Algorithms. |

| protected getAlgorithmsCatalog () : java.util.Set<AlgorithmInfo> | |
|---|---|
| Description | Returns the registered algorithms. |
| Return Type Description | Algorithms catalog. |

| public insert (algorithms : AlgorithmInfo) | | |
|---|---|---|
| Parameters | algorithms | |
| | Description | Algorithms to add. |
| | Multiplicity | 0..* |
| | Type | AlgorithmInfo |
| | Direction | inout |
| Description | Adds the algorithms of algorithms parameter to algorithms file. | |

| public update (algorithms : Algorithms) : void | | |
|---|---|---|
| Parameters | algorithms | |
| | Description | Algorithms. |
| | Multiplicity | 1 |
| | Type | Algorithms |
| | Direction | inout |
| Description | Updates the registered algorithms file. | |

| public clear () : void | |
|---|---|
| Description | Clears the algorithms file. |

| public insert (algorithms : AlgorithmInfo) : void | | |
|---|---|---|
| Parameters | algorithms | |
| | Description | Algorithms to add. |
| | Multiplicity | 0..* |
| | Type Modifier | [0..*] |
| | Type | AlgorithmInfo |
| | Direction | inout |
| | Java Detail | N/A |
| Description | Add the algorithms of algorithms parameter to algorithms file. | |

| public delete (algorithm : AlgorithmInfo) : void | | |
|---|---|---|
| Parameters | algorithm | |
| | Description | Algorithm. |
| | Multiplicity | 1 |
| | Type | AlgorithmInfo |
| | Direction | inout |
| Description | Deletes an algorithm from algorithms file. | |

# Benchmark

| Name | Value |
|---|---|
| Description | Benchmark entity. |
| Visibility | public |
| Stereotypes | XmlRootElement |

# Attributes

| private workspace : String | | | |
|---|---|---|---|
| Description | Workspace which the benchmark is registered. | | |
| Stereotypes | Property, XmlAttribute | | |
| Type | String | | |
| Getter | true | Setter | true |
| Multiplicity | 1 | | |

| private name : String | | | |
|---|---|---|---|
| Description | Benchmark Name. | | |
| Stereotypes | Property, XmlAttribute | | |
| Type | String | | |
| Getter | true | Setter | false |
| Multiplicity | 1 | | |

| private inputsDir : String | | | |
|---|---|---|---|
| Description | Input implicational systems dir path. | | |
| Stereotypes | Property, XmlAttribute | | |
| Type | String | | |
| Getter | true | Setter | true |
| Multiplicity | 1 | | |

| private inputFiles : java.util.List | | | |
|---|---|---|---|
| Description | Input files which will be copied to input dir. | | |
| Stereotypes | Property | | |
| Type | java.util.List, XmlTransient | | |
| Getter | true | Setter | true |
| Multiplicity | 1..* | | |

| private algorithmsEntities : java.util.List<AlgorithmInfo> | | | |
|---|---|---|---|
| Description | Benchmark algorithms. | | |
| Stereotypes | Property, XmlElement | | |
| Type | AlgorithmInfo | | |
| Getter | true | Setter | false |
| Multiplicity | * | | |

# Operations

| public Benchmark () | |
|---|---|
| Description | Constructor. |

| public Benchmark (name : String, algorithms : java.util.List) | |
|---|---|
| Description | Constructor. |
| Exceptions | IllegalArgumentException if the name or algorithms list are empty. |

| public getBenchmarkPath () : String | |
|---|---|
| Description | The benchmark path. |
| Return Type Description | Benchmark path. |
| **public getOutputDir () : String** | |
| Description | Path of output directory of benchmark. |
| Return Type Description | Output directory path. |

| public equals (obj : Object) : boolean | | |
|---|---|---|
| Parameters | **obj** | |
| | Multiplicity | 1 |
| | Type | Object |
| | Direction | inout |
| Description | Two benchmarks are equals if their names are. | |
| Return Type Description | `true` if the obj parameter is a benchmarks and its name is equal to name of this benchmark instance, `false` otherwise. | |

| public hashCode () : int | |
|---|---|
| Description | Compute the hashcode based on the name property. |
| Return type description | Hashcode. |

| public toString () : String | |
|---|---|
| Description | Benchmark string representation. |
| Return type description | Benchmark’s name. |

# AlgorithmInfo

| Name | Value |
|---|---|
| Description | Entity with an algorithm attributes. |
| Visibility | public |
| Stereotypes | XmlRootElement |

## Attributes

| private name : String | | | |
|---|---|---|---|
| Description | Name. | | |
| Stereotypes | Property | | |
| Type | String | | |
| Getter | true | Setter | true |
| Multiplicity | 1 | | |
| Java Detail | N/A | | |

| private shortName : String | | | |
|---|---|---|---|
| Description | Short name. | | |
| Stereotypes | Property | | |
| Type | String | | |
| Getter | true | Setter | true |
| Multiplicity | 1 | | |

| private type : Class | | | |
|---|---|---|---|
| Description | Algorithm implementation class. | | |
| Stereotypes | Property | | |
| Type | java.lang.Class | | |
| Getter | true | Setter | true |
| Multiplicity | 1 | | |

# Operations

| public AlgorithmInfo () | |
|---|---|
| Description | Constructor. |
| Upper | 1 |

| public AlgorithmInfo (alg : Algorithm) | | |
|---|---|---|
| Parameters | alg | |
| | Description | Algorithm. |
| | Multiplicity | 1 |
| | Type | Algorithm |
| | Direction | inout |
| Description | Constructs an AlgorithmInfo instance from an algorithm implementation. | |
| Upper | 1 | |

| public toString () : String | |
|---|---|
| Description | |
| Return type description | |

| public hashCode () : int | |
|---|---|
| Description | |
| Return type description | |

| public equals (obj : Object) : boolean | | |
|---|---|---|
| Parameters | **obj** | |
| | Multiplicity | Unspecified |
| | Type | Object |
| | Direction | inout |
| Description | Two AlgorithmInfo objets are equals if their names an short names are. | |
| Return type description | `true` if the obj parameter is a AlgorithmInfo instance and its name and short name are equal to name and short name of this benchmark instance, `false` otherwise. | |