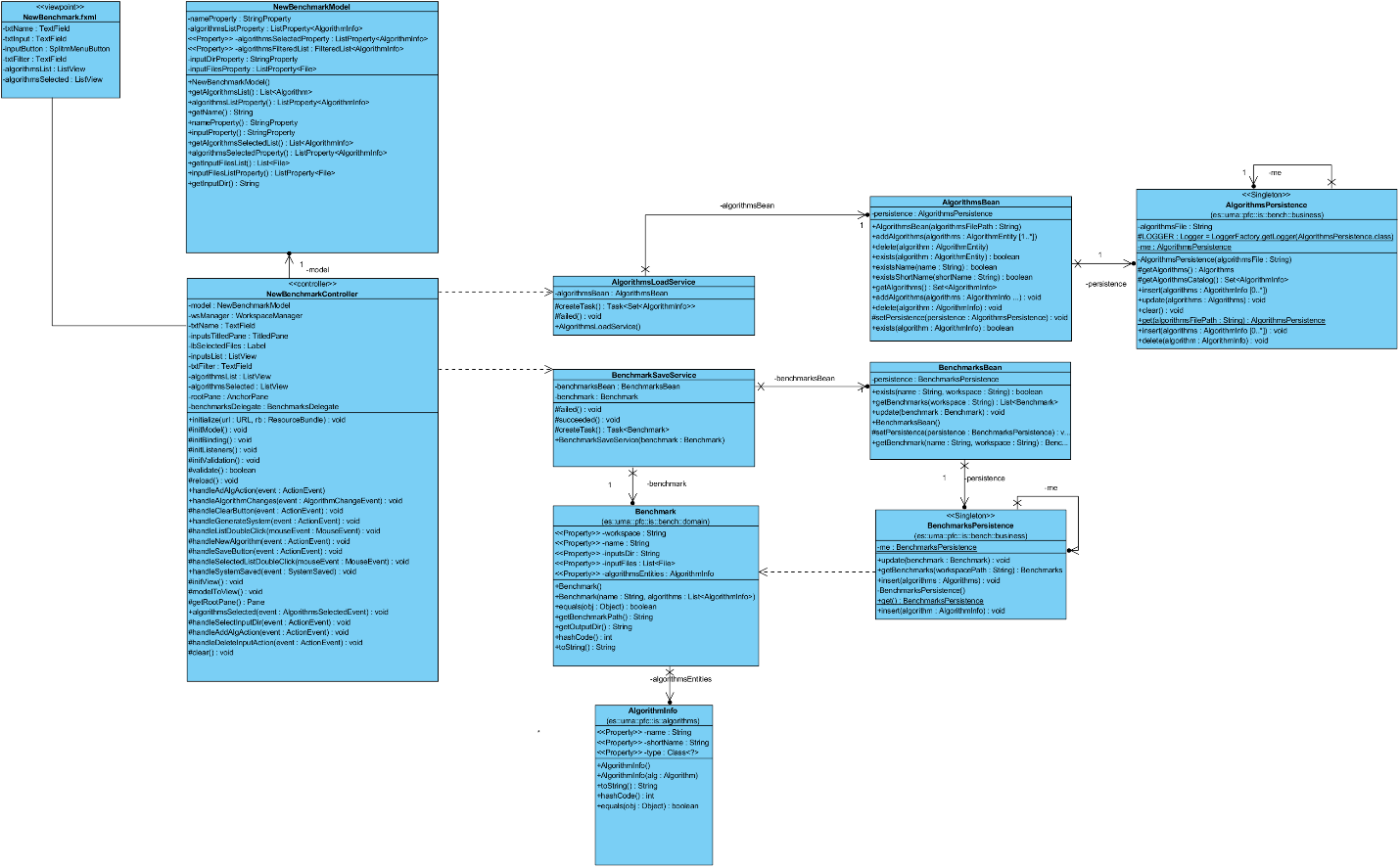
# Registrar Benchmark



## Summary

|  |  |
| --- | --- |
| Name | Description |
| Image1.png [NewBenchmark.fxml](#1jX1Q_KGAqACJApR) | New benchmark view. |
| Image1.png [NewBenchmarkModel](#f7YNQ_KGAqACJAp_) | New Benchmark view model. |
| Image1.png [AlgorithmsPersistence](#yZEWmwqGAqACIS2F) | Persists the algorithms into an XML file entities using JAXB. |
| Image1.png [AlgorithmsBean](#Oq2DQ_KGAqACJA6Q) | Business logic for insert, modify and delete algorithms. |
| Image1.png [AlgorithmsLoadService](#x0KcC_KGAqACIQ6f) | Loads the algorithms declared in algorithms.properties file in the actual workspace. |
| Image1.png [NewBenchmarkController](#y7L1Q_KGAqACJAo_) | NewBenchmark view Controller class. |
| Image1.png [BenchmarksBean](#WI.rQ_KGAqACJBFe) | Business logic for insert, modify and delete algorithms. |
| Image1.png [BenchmarkSaveService](#NyMcC_KGAqACIQ6H) | Service which saves benchmark changes. |
| Image1.png [Benchmark](#dkHqmwqGAqACISvp) | Benchmark entity. |
| Image1.png [BenchmarksPersistence](#i.sWmwqGAqACIS2W) | Persist the benchmarks into an XML file entities using JAXB. |
| Image1.png [AlgorithmInfo](#7AAGmwqGAqACISxk) | Entity with an algorithm attributes. |

#### Description

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

## Details

Image2.png 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.  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 | | |

### Image2.png NewBenchmarkController

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

#### Attributes

|  |  |  |  |
| --- | --- | --- | --- |
| private model : NewBenchmarkModel | | | |
| Description | Model. | | |
| Type | Image2.png [NewBenchmarkModel](#f7YNQ_KGAqACJAqA) | | |
| 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 | Image2.png WorkspaceManager | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

|  |  |  |  |
| --- | --- | --- | --- |
| private benchmarksDelegate : BenchmarksDelegate | | | |
| Description | Delegate for benchmarks business logic. | | |
| Type | Image2.png 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 | Image2.png 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 | Image2.png 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 | Image2.png AlgorithmsSelectedEvent | | Direction | inout | |
| Description | Handles the AlgorithmsSelectedEvent published by the Eventbus. 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* optionis 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. |

### Image2.png **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 | Image5.png javafx.beans.property.ListProperty | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

|  |  |  |  |
| --- | --- | --- | --- |
| private algorithmsSelectedProperty : javafx.beans.property.ListProperty | | | |
| Description | Selected algorithms list binding property. | | |
| Type | Image5.png 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 | Image5.png 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. |

### Image2.png 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 | Image2.png [AlgorithmsBean](#cbtFHfKGAqACITJa) | | |
| 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. |

### Image2.png BenchmarkSaveService

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

#### Attributes

|  |  |  |  |
| --- | --- | --- | --- |
| private benchmarksBean : BenchmarksBean | | | |
| Description | Benchmarks logic. | | |
| Type | Image2.png [BenchmarksBean](#KwELQ_KGAqACJBC4) | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

|  |  |  |  |
| --- | --- | --- | --- |
| private benchmark : Benchmark | | | |
| Description | Benchmark to save. | | |
| Type | Image2.png [Benchmark](#r2BkHfKGAqACISZ0) | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

#### Operations

|  |  |
| --- | --- |
| public BenchmarkSaveService (benchmark : Benchmark) | |
| Parameters | |  |  | | --- | --- | | benchmark | | | Description | Benchmark to save. | | Multiplicity | 1 | | Type | Image2.png [Benchmark](#r2BkHfKGAqACISZ0) | | 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. Publishes a BenchmarksChangeEvent and MessageEvent by the Eventbus. |

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

### Image2.png BenchmarksBean

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

#### Attributes

|  |  |  |  |
| --- | --- | --- | --- |
| private persistence : BenchmarksPersistence | | | |
| Description | Class for benchmarks persistence. | | |
| Type | Image2.png [BenchmarksPersistence](#LMsjQ_KGAqACJA7g) | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

#### Operations

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

|  |  |
| --- | --- |
| protected setPersistence (persistence : BenchmarksPersistence) : void | |
| Parameters | |  |  | | --- | --- | | persistence | | | Multiplicity | 1 | | Type | Image2.png [BenchmarksPersistence](#LMsjQ_KGAqACJA7g) | | Direction | inout | |
| Description | For testing usage. |

|  |  |
| --- | --- |
| public update (benchmark : Benchmark) : void | |
| Parameters | |  |  | | --- | --- | | benchmark | | | Description | Benchmark. | | Multiplicity | 1 | | Type | Image2.png [Benchmark](#r2BkHfKGAqACISZ0) | | 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 | Image5.png 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 | Image5.png String | | Direction | inout |  |  |  | | --- | --- | | workspace | | | Description | Workspace path. | | Multiplicity | 1 | | Type | Image5.png 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 | Image5.png String | | Direction | inout |  |  |  | | --- | --- | | workspace | | | Description | Workspace path. | | Multiplicity | 1 | | Type | Image5.png 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. |

### Image2.png AlgorithmsBean

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

#### Attributes

|  |  |  |  |
| --- | --- | --- | --- |
| private persistence : AlgorithmsPersistence | | | |
| Description | Algorithms persistence. | | |
| Type | Image2.png [AlgorithmsPersistence](#EC1FHfKGAqACITI0) | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

#### Operations

|  |  |
| --- | --- |
| public AlgorithmsBean (algorithmsFilePath : String) | |
| Parameters | |  |  | | --- | --- | | algorithmsFilePath | | | Description | Workspace path. | | Multiplicity | 1 | | Type | Image5.png String | | Direction | inout | |
| Description | Constructor. |

|  |  |
| --- | --- |
| protected setPersistence (persistence : AlgorithmsPersistence) : void | |
| Parameters | |  |  | | --- | --- | | persistence | | | Multiplicity | 1 | | Type | Image2.png [AlgorithmsPersistence](#EC1FHfKGAqACITI0) | | Direction | inout | |
| Description | For testing usage. |

|  |  |
| --- | --- |
| public addAlgorithms (algorithms : AlgorithmInfo) | |
| Parameters | |  |  | | --- | --- | | algorithms | | | Description | Algorithms to add. | | Multiplicity | 0..\* | | Type | Image2.png AlgorithmInfo | | Direction | inout | |
| Description | Updates the algorithms file adding new algorithms.  If any algorithms exists, this is overrided. |

|  |  |
| --- | --- |
| public delete (algorithm : AlgorithmInfo) | |
| Parameters | |  |  | | --- | --- | | algorithm | | | Description | Algorithm | | Multiplicity | 1 | | Type | Image2.png AlgorithmInfo | | Direction | inout | |
| Description | Removes an algorithm from algorithms file. |

|  |  |
| --- | --- |
| public exists (algorithm : AlgorithmInfo) : boolean | |
| Parameters | |  |  | | --- | --- | | algorithm | | | Description | Algorithm | | Multiplicity | 1 | | Type | Image2.png AlgorithmInfo | | Direction | inout | |
| Description | If an algorithm exists in algorithms file. |

|  |  |
| --- | --- |
| public existsName (name : String) : boolean | |
| Parameters | |  |  | | --- | --- | | name | | | Description | Name. | | Multiplicity | 1 | | Type | Image5.png 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 | Image5.png 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 | Image2.png [BenchmarksPersistence](#LMsjQ_KGAqACJA7g) | | |
| 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 | Image5.png String | | Direction | inout | |
| Description | Returns the registered benchmarks in a workspace. |

|  |  |
| --- | --- |
| public update (benchmark : Benchmark) : void | |
| Parameters | |  |  | | --- | --- | | benchmark | | | Description | Algorithms. | | Multiplicity | 1 | | Type | Image2.png [Benchmark](#r2BkHfKGAqACISZ0) | | Direction | inout | |
| Description | Initialize the benchmarks file with benchmarks parameter. |

|  |  |
| --- | --- |
| public insert (algorithms : Algorithms) : void | |
| Parameters | |  |  | | --- | --- | | algorithms | | | Multiplicity | 1 | | Type | Image2.png 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 | Image2.png [AlgorithmInfo](#IIlEkwqGAqACIUbm) | | 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 | Image2.png [AlgorithmsPersistence](#EC1FHfKGAqACITI0) | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

|  |  |  |  |
| --- | --- | --- | --- |
| private algorithmsFile : String | | | |
| Description | Target file. | | |
| Type | Image5.png String | | |
| Getter | false | Setter | false |
| Multiplicity | 1 | | |

#### Operations

|  |  |
| --- | --- |
| private AlgorithmsPersistence (algorithmsFile : String) | |
| Parameters | |  |  | | --- | --- | | algorithmsFile | | | Multiplicity | 1 | | Type | Image5.png 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 | Image5.png 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 | Image2.png [AlgorithmInfo](#IIlEkwqGAqACIUbm) | | Direction | inout | |
| Description | Adds the algorithms of algorithms parameter to algorithms file. |

|  |  |
| --- | --- |
| public update (algorithms : Algorithms) : void | |
| Parameters | |  |  | | --- | --- | | algorithms | | | Description | Algorithms. | | Multiplicity | 1 | | Type | Image2.png 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 | Image2.png [AlgorithmInfo](#IIlEkwqGAqACIUbm) | | 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 | Image2.png [AlgorithmInfo](#IIlEkwqGAqACIUbm) | | 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 | Image5.png String | | |
| Getter | true | Setter | true |
| Multiplicity | 1 | | |

|  |  |  |  |
| --- | --- | --- | --- |
| private name : String | | | |
| Description | Benchmark Name. | | |
| Stereotypes | Property, XmlAttribute | | |
| Type | Image5.png String | | |
| Getter | true | Setter | false |
| Multiplicity | 1 | | |

|  |  |  |  |
| --- | --- | --- | --- |
| private inputsDir : String | | | |
| Description | Input implicational systems dir path. | | |
| Stereotypes | Property, XmlAttribute | | |
| Type | Image5.png 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 | Image2.png [AlgorithmInfo](#IIlEkwqGAqACIUbm) | | |
| 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 | Image5.png String | | |
| Getter | true | Setter | true |
| Multiplicity | 1 | | |
| Java Detail | N/A | | |

|  |  |  |  |
| --- | --- | --- | --- |
| private shortName : String | | | |
| Description | Short name. | | |
| Stereotypes | Property | | |
| Type | Image5.png String | | |
| Getter | true | Setter | true |
| Multiplicity | 1 | | |

|  |  |  |  |
| --- | --- | --- | --- |
| private type : Class | | | |
| Description | Algorithm implementation class. | | |
| Stereotypes | Property | | |
| Type | Image2.png 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 | Image2.png 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. |