










Summary

Name	Description
 NewBenchmark.fxml	New benchmark view.
 NewBenchmarkModel	New Benchmark view model.
 AlgorithmsClassLoadService	Loads the algorithms found in the libraries included in the workspace lib folder.
 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.SplitMenuButton			
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		



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.textfield.TextField			
Description	Algorithms filter.		
Type	javafx.scene.control.textfield.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 algorithms 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 <i>Clear</i> button is pressed, the fields are cleared.	
Stereotypes	FXML	


public handleGenerateSystem (event : javafx.event.ActionEvent) : void		
Parameters	event	
	Description	Event thrown when the <i>Random</i> option of <i>Input</i> 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 <i>New Algorithm</i> 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 <i>Save</i> 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 <i>SystemSaved</i> 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. 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 <i>Add Algorithm</i> button is pressed.
	Multiplicity	1
	Type	javafx.event.ActionEvent
	Direction	inout
Description	When the <i>Add Algorithm</i> button is pressed, the <i>New Algorithm</i> window is shown.	
Stereotypes	FXML	

protected clear () : void	
Description	Clears all fields.

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





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	Algorithms 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.



AlgorithmsClassLoadService

Name	Value
Description	Loads the algorithms found in the libraries included in the workspace lib folder.
Visibility	public

Attributes

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

Operations

public AlgorithmsLoadService ()	
Description	Constructor.

protected createTask () : javafx.concurrent.Task	
Description	Creates the background task which loads the found algorithms.
Return Type Description	Algorithms info list.


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. 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.	


public getBenchmark (name : String, workspace : String) : Benchmark	
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.

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.	


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.	