

KSD Client: Plugin4Gephi

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# Chapter 1

## Gephi-Plugin "Architectural GraphML"

### 1.1 Introduction

This plug-in supports an architectural interpretation of graphs. Graphs can be created with help of the groundplan, it adds an areal dimension to the graph with help of layouts and provides coloring mechanisms for representation possibilities.

The single functionalities are described in the next chapter.

### 1.2 Functionality Overview

#### 1.2.1 Graph Creator

The creation of graphs is one of the main functionalities of Gephi. The creator is started from Gephi and has its own GUI. When started, the tool asks what groundplan shall be loaded. Additionally, already existing nodes can be loaded into the creator and displayed above the groundplan. The GUI itself looks like this:

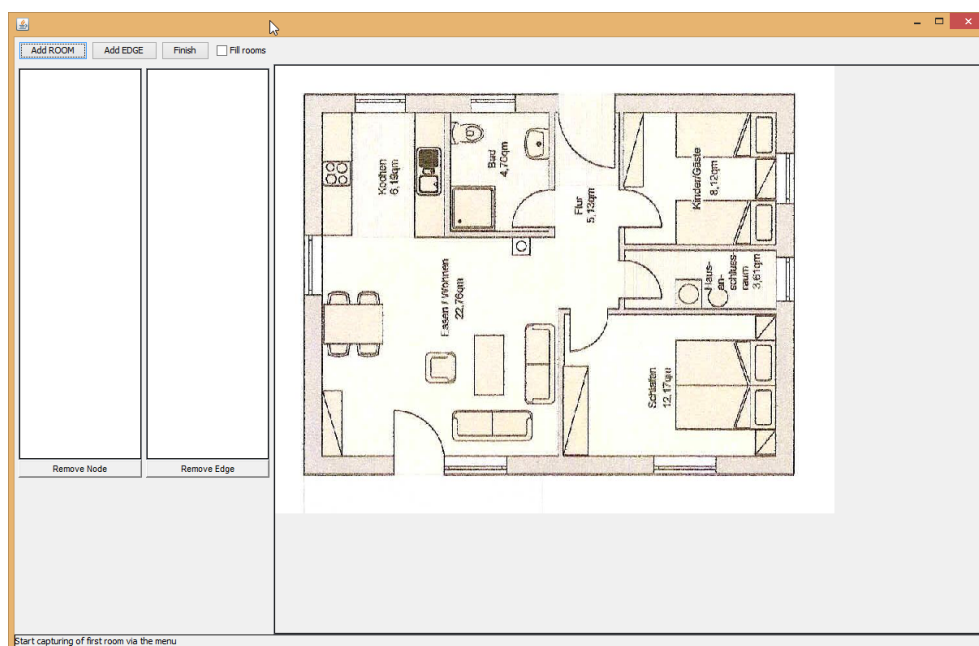


Figure 1.1: Graph Creator

On the top, there are three buttons to add rooms, edges and finish the capturing process. To add a room, simply click on the button "New ROOM". The mouse cursor changes to a red circle when moving above the groundplan. Click in the middle of the room that shall be captured and the tool asks for the roomtype. Choose the type of the room and click on "Ok". The tool expects now the corners of this room, this can be seen by the new mouse cursor symbol: a small blue circle. Click into all corners of the room and finish the capturing process by using the right mouse button or click on "Finish ROOM". The room is now captured and displayed in the groundplan in slightly lighter colors. The id of the room is automatically retrieved from Gephi and the room data is synchronized with Gephi (and already displayed).

To add an edge, click on the button "Add EDGE". The cursor changes to a red circle with a "1" inside to indicate the starting of the edge. Click on one (already captured) room center, the cursor will change to a red circle with a "2" inside. Click on the second room and the tool will ask for the connection type. Select the corresponding connection type, the edge capturing is exited automatically.

The third button "Finish" has to be clicked at the end of the capturing process. Although the data is already synchronized with Gephi, this button creates all necessary previously defined attributes.

The tickbox "Fill rooms" fills the inside of all rooms. This is a help for the user to see if all rooms have been captured or if there are still white spaces in the groundplan. On the left side of the GUI, there is a list of all captured nodes and edges with its id and roomtype. If one is selected, he can be deleted by clicking on the bottom button "Remove Node" respectively "Remove Edge".

On the bottom of the GUI is a hint list that helps with the next step or confirms the successful termination of the previous step.

And finally on the right side of the GUI, the previously selected groundplan of the graph is displayed with all captured edges and nodes. This part allows zooming in and out to improve the capturing process.

### 1.2.2 History Function

The history functionality allows to backup the current configuration in Gephi to a history. The stored configuration gets an id and a date. Additionally, a custom description can be added if favored. If e.g. some changes shall be undone, a stored configuration can be loaded by selecting the desired configuration and clicking on "Load selected configuration". Moreover, the history can also be cleared. Technically, when saving a configuration, the complete "\*.gephi" file is stored into a sub-directory of the main file (called "GephiHistory"). This is why the user needs to have writing rights at the location of the file. In addition, a log file is generated that stores the id, time and description.

Here is the UI:

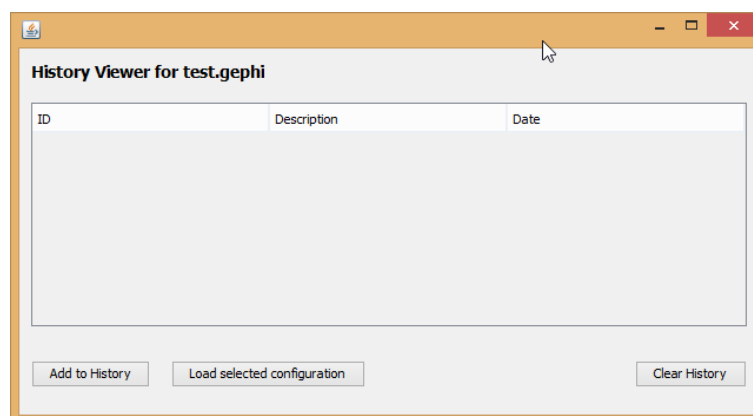


Figure 1.2: History Function

### 1.2.3 Layout

The possibility to display layouts is integrated in Gephi and allows the programmer to add a custom layout into the layout list. The layout for this plug-in supports two visualization methods:

### 1.2.3.1 Groundplan mode:

The "groundplan mode" adds the room geometry around the nodes. The node is seen as center of the room and the room geometry is placed around the current location of the node. In addition, the layout modifies the visual appearance of the graph. It adds node and edge labels according to previous entered data. The edges are coloured and its weight is set according to predefined values.

The following figure shows an example with nodes before applying the layout (left) and after (right).

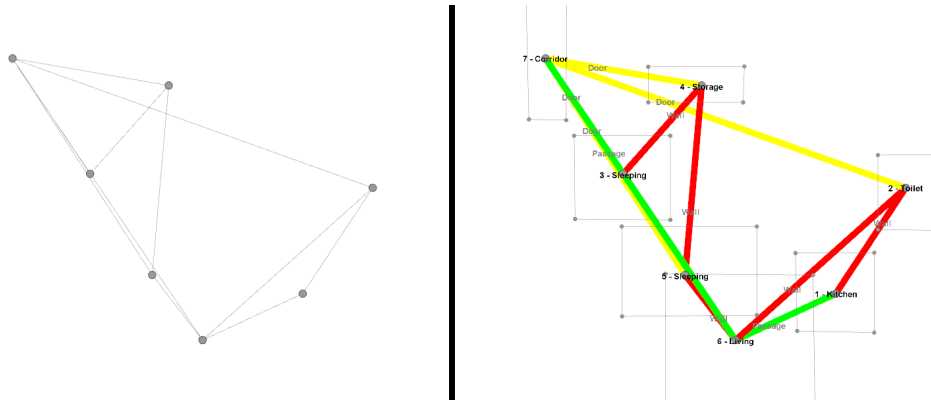


Figure 1.3: Layout: Groundplan mode

Once the layout is stopped, the room geometry is removed. Only the labels and edge coloring remains.

### 1.2.3.2 Editing mode:

The "editing mode" works the same as the previously described "groundplan mode", but first moves the room nodes to its "original location" in the groundplan according to the AGraphML-data. Other than that it works the same way as the "groundplan mode". A visual display is shown here:

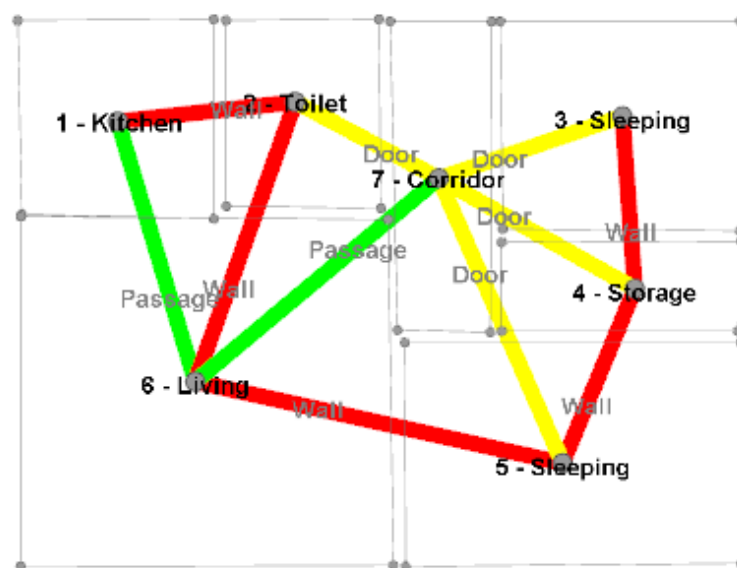


Figure 1.4: Layout: Editing mode

### 1.2.4 Visualization Helper

There are two helper tools implemented that optimize the graphical evaluation of the graphs.

#### 1.2.4.1 Colorizer

The "Colorizer" colors the nodes according to its attribute characteristics. The UI is shown in the following figure:

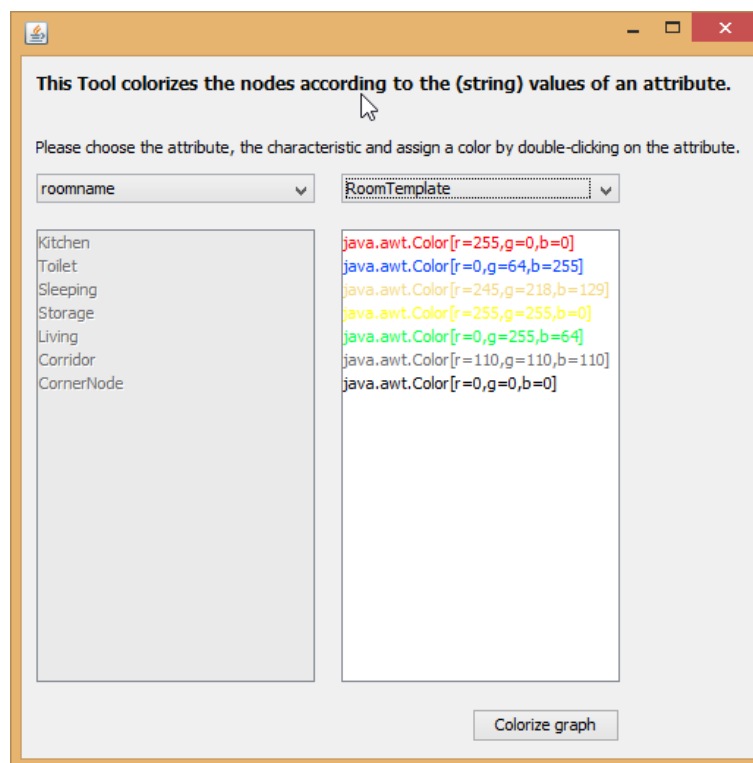


Figure 1.5: UI of Colorizer

The left drop down field allows to choose an attribute, its occurring characteristics are shown in the list below. A color can be chosen by double clicking on the corresponding list item in the left list. Some predefined coloring templates exist. They can be set in the right drop down list. A reset sets all nodes and edges to black.

#### 1.2.4.2 WeightManager

The weight manager sets the weight of the edges and therewith the thickness of the edges in the visualization of the graph. It works according to the same principals as the Colorizer. Note that useful thickness increments are between 0 and 1. Its UI looks like this:

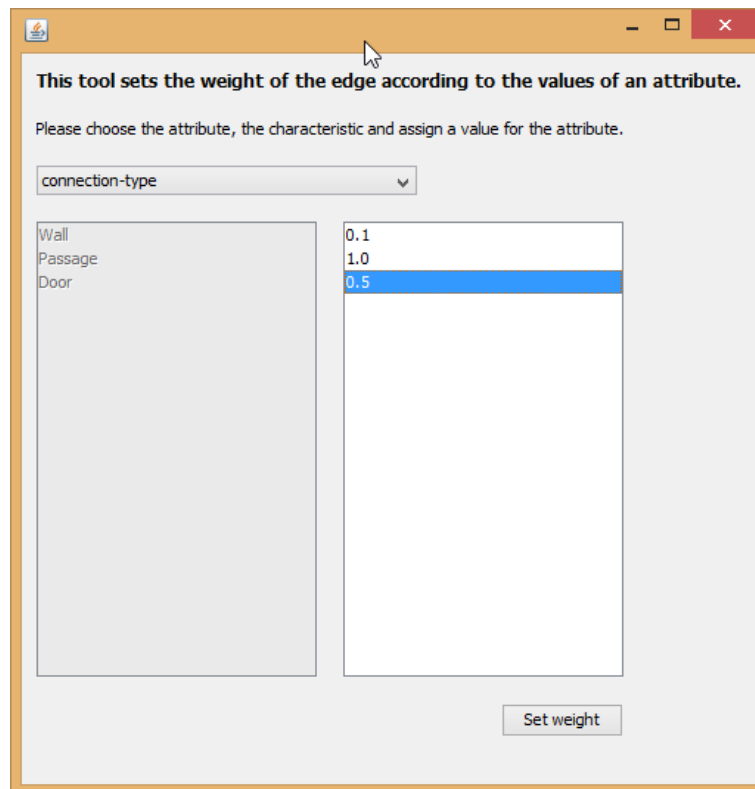


Figure 1.6: UI of WeightManager

### 1.2.5 Exporter

To export the data, an internal exporter to the GraphML-format is used. As the final AGraphML-fileformat was only defined at the end of the development process, the exported data does not fit the AGraphML-specification. The connection to the Neo4J-database is also not implemented and data can't be exported to Neo4J. The connection to the "ar:searchbox" is also only manually possible.

## 1.3 Installation

For installation instructions, refer to "install.md". Note that JDK version 7 is necessary to run Gephi.

## 1.4 Architecture

The architecture is described in a separate documentation that can be found under <http://gitlab.ai.ar-tum.de/ksd-research-group/ksd-documentation-gephi-grasshopper-agraphml-plugins>

## 1.5 Directories

- **RefMan.html:**  
This help file as html
- **RefMan.pdf:**  
This help file as pdf

- **README.md:**  
Short introduction of this project for the Gitlab main page
- **install.md:**  
Installation instruction of this project
- **build.xml:**  
File from NetBeans project
- **manifest.mf:**  
File from NetBeans project
- **source:**  
Folder for source files of this project
- **nbproject:**  
Project files from NetBeans
- **doc:**  
Contains all components like descriptions and graphics for publication and documentation of this software
  - **Main\_en.md:**  
Contains the user documentation of this system in English
  - **Doxyfile:**  
Doxygen-Configuration file
  - **make.bat:**  
Batch file that starts the document generation with doxygen and MiXTeX
  - **pictures:**  
Contains all used graphics
  - **publication:**  
Contains all necessary files for publishing the plug-in at the Gephi marketplace
  - **install:**  
Contains the installation instructions as DOCX and PDF file

## 1.6 Publication

This plug-in has been published in the Gephi Marketplace and can be found under <https://marketplace.gephi.org/plugin/architectural-graphml/>



## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

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## Chapter 3

# Class Index

### 3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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<a href="#">graphml.architecture.layout.Graphml</a>	24
<a href="#">graphml.architecture.layout.GraphmlLayout</a>	25
<a href="#">graphml.architecture.history.HistoryFrame</a>	28
<a href="#">graphml.architecture.create.controller.ImageLoader</a>	28
<a href="#">graphml.architecture.create.view.ImagePanel</a>	29
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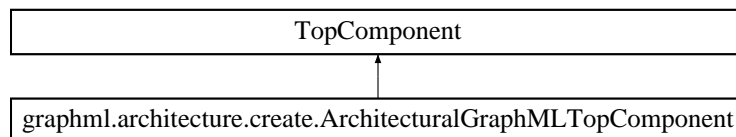


## Chapter 4

# Class Documentation

### 4.1 graphml.architecture.create.ArchitecturalGraphMLTopComponent Class Reference

Inheritance diagram for graphml.architecture.create.ArchitecturalGraphMLTopComponent:



#### Public Member Functions

- [ArchitecturalGraphMLTopComponent](#) ()
- void [componentOpened](#) ()
- void [componentClosed](#) ()

#### 4.1.1 Detailed Description

Top component which displays something. This class is a panel in the Gephi-Userinterface (As this class is mostly generated automatically, not all code is commented)

#### 4.1.2 Constructor & Destructor Documentation

4.1.2.1 `graphml.architecture.create.ArchitecturalGraphMLTopComponent.ArchitecturalGraphMLTopComponent ( )` `[inline]`

default constructor

#### 4.1.3 Member Function Documentation

4.1.3.1 `void graphml.architecture.create.ArchitecturalGraphMLTopComponent.componentClosed ( )` `[inline]`

Overrides method [componentClosed\(\)](#) with empty method

#### 4.1.3.2 void graphml.architecture.create.ArchitecturalGraphMLTopComponent.componentOpened ( ) [inline]

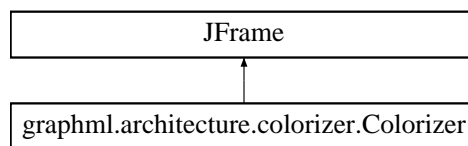
Overrides method [componentOpened\(\)](#) with empty method

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/ArchitecturalGraphMLTopComponent.java

## 4.2 graphml.architecture.colorizer.Colorizer Class Reference

Inheritance diagram for graphml.architecture.colorizer.Colorizer:



### Public Member Functions

- [Colorizer](#) ( )

#### 4.2.1 Detailed Description

This class holds the [Colorizer](#) GUI (Parts of this class are generated automatically by NetBeans and therewith don't contain Javadoc-Code)

#### Author

Thomas Stocker

#### 4.2.2 Constructor & Destructor Documentation

##### 4.2.2.1 graphml.architecture.colorizer.Colorizer.Colorizer ( ) [inline]

Constructor creates new form [Colorizer](#)

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/colorizer/Colorizer.java

## 4.3 graphml.architecture.common.Constants Class Reference

### Classes

- enum **Actions**
- enum **Cursor**

## Static Public Attributes

- static final String[] `edgeType` = {"DOOR", "ENTRANCE", "PASSAGE", "SLAB", "STAIRS", "WALL", "WINDOW"}
- static final Color[] `edgeTypeColor` = {Color.YELLOW, Color.YELLOW, Color.GREEN, Color.RED, Color.YELLOW, Color.RED, Color.YELLOW}
- static final Double[] `edgeTypeWeight` = {0.5, 0.5, 1.0, 0.1, 0.75, 0.01, 0.5}
- static final String[] `roomType` = {"ROOM", "KITCHEN", "LIVING", "SLEEPING", "WORKING", "CORRIDOR", "TOILET", "BATH", "EXTERIOR", "STORAGE", "BUILDINGSERVICES", "CHILDREN", "PARKING"}
- static final String[] `rows` = {"Editing mode", "Groundplan mode"}
- static final String `attrId` = "Id"
- static final String `attrRoomType` = "roomType"
- static final String `attrName` = "name"
- static final String `attrCenter` = "center"
- static final String `attrCorners` = "corners"
- static final String `attrWindowExist` = "windowExist"
- static final String `attrEnclosedRoom` = "enclosedRoom"
- static final String `attrArea` = "area"
- static final String `attrLight` = "light"
- static final String `attrPrivacy` = "privacy"
- static final String `attrZone` = "zone"
- static final String `attrIsCornerNode` = "isCornerNode"
- static final String[] `newColumnsNode` = {`attrId`, `attrRoomType`, `attrName`, `attrCenter`, `attrCorners`, `attrWindowExist`, `attrEnclosedRoom`, `attrArea`, `attrLight`, `attrPrivacy`, `attrZone`, `attrIsCornerNode`}
- static final AttributeType[] `newColumnsNodeType` = {AttributeType.STRING, AttributeType.STRING, AttributeType.STRING, AttributeType.STRING, AttributeType.STRING, AttributeType.BOOLEAN, AttributeType.BOOLEAN, AttributeType.FLOAT, AttributeType.INT, AttributeType.INT, AttributeType.STRING, AttributeType.BOOLEAN}
- static final String `attrEdgeType` = "edgeType"
- static final String `attrWeight` = "weight"
- static final String `attrLinearDistance` = "linearDistance"
- static final String `attrPosition` = "position"
- static final String `attrWalkingDistance` = "walkingDistance"
- static final String `attrFeltDistance` = "feltDistance"
- static final String `attrViewRelation` = "viewRelation"
- static final String[] `newColumnsEdge` = {`attrId`, `attrEdgeType`, `attrWeight`, `attrLinearDistance`, `attrPosition`, `attrWalkingDistance`, `attrFeltDistance`, `attrViewRelation`}
- static final AttributeType[] `newColumnsEdgeType` = {AttributeType.STRING, AttributeType.STRING, AttributeType.FLOAT, AttributeType.FLOAT, AttributeType.STRING, AttributeType.FLOAT, AttributeType.FLOAT, AttributeType.INT}
- static final URL `urlAddNode` = Constants.class.getClassLoader().getResource("graphml/architecture/images/cursor-AddNodeCenter.png")
- static final URL `urlAddCorner` = Constants.class.getClassLoader().getResource("graphml/architecture/images/cursor-AddCorner.png")
- static final URL `urlStartEdge` = Constants.class.getClassLoader().getResource("graphml/architecture/images/cursor-StartEdge.png")
- static final URL `urlFinishEdge` = Constants.class.getClassLoader().getResource("graphml/architecture/images/cursor-FinishEdge.png")

### 4.3.1 Detailed Description

This class contains all constants so that they can be changed easily

#### Author

Thomas Stocker

### 4.3.2 Member Data Documentation

4.3.2.1 `final String graphml.architecture.common.Constants.attrArea = "area" [static]`

Attribute name definition for are

4.3.2.2 `final String graphml.architecture.common.Constants.attrCenter = "center" [static]`

Attribute name definition for center

4.3.2.3 `final String graphml.architecture.common.Constants.attrCorners = "corners" [static]`

Attribute name definition for corners

4.3.2.4 `final String graphml.architecture.common.Constants.attrEdgeType = "edgeType" [static]`

Attribute name definition for edge type

4.3.2.5 `final String graphml.architecture.common.Constants.attrEnclosedRoom = "enclosedRoom" [static]`

Attribute name definition for enclosed room

4.3.2.6 `final String graphml.architecture.common.Constants.attrFeltDistance = "feltDistance" [static]`

Attribute name definition for felt distance

4.3.2.7 `final String graphml.architecture.common.Constants.attrId = "Id" [static]`

Attribute name definition for ID

4.3.2.8 `final String graphml.architecture.common.Constants.attrIsCornerNode = "isCornerNode" [static]`

Attribute name definition for corner node

4.3.2.9 `final String graphml.architecture.common.Constants.attrLight = "light" [static]`

Attribute name definition for light

4.3.2.10 `final String graphml.architecture.common.Constants.attrLinearDistance = "linearDistance" [static]`

Attribute name definition for linear distance

4.3.2.11 `final String graphml.architecture.common.Constants.attrName = "name" [static]`

Attribute name definition for name

4.3.2.12 `final String graphml.architecture.common.Constants.attrPosition = "position" [static]`

Attribute name definition for position



4.3.2.13 `final String graphml.architecture.common.Constants.attrPrivacy = "privacy" [static]`

Attribute name definition for privacy

4.3.2.14 `final String graphml.architecture.common.Constants.attrRoomType = "roomType" [static]`

Attribute name definition for roomType

4.3.2.15 `final String graphml.architecture.common.Constants.attrViewRelation = "viewRelation" [static]`

Attribute name definition for view relation

4.3.2.16 `final String graphml.architecture.common.Constants.attrWalkingDistance = "walkingDistance" [static]`

Attribute name definition for walking distance

4.3.2.17 `final String graphml.architecture.common.Constants.attrWeight = "weight" [static]`

Attribute name definition for weight

4.3.2.18 `final String graphml.architecture.common.Constants.attrWindowExist = "windowExist" [static]`

Attribute name definition for attribute if window exists

4.3.2.19 `final String graphml.architecture.common.Constants.attrZone = "zone" [static]`

Attribute name definition for zone

4.3.2.20 `final String [] graphml.architecture.common.Constants.edgeType = {"DOOR", "ENTRANCE", "PASSAGE", "SLAB", "STAIRS", "WALL", "WINDOW"} [static]`

Listing of different possible edge types according to AGraphML specification

4.3.2.21 `final Color [] graphml.architecture.common.Constants.edgeTypeColor = {Color.YELLOW, Color.YELLOW, Color.GREEN, Color.RED, Color.YELLOW, Color.RED, Color.YELLOW} [static]`

Definition of the color of the edge types (order corresponding to edgeType), for colorize template

4.3.2.22 `final Double [] graphml.architecture.common.Constants.edgeTypeWeight = {0.5, 0.5, 1.0, 0.1, 0.75, 0.01, 0.5} [static]`

Definition of the weight of the edge types (order corresponding to edgeType), for colorize template

4.3.2.23 `final String [] graphml.architecture.common.Constants.newColumnsEdge = {attrId, attrEdgeType, attrWeight, attrLinearDistance, attrPosition, attrWalkingDistance, attrFeltDistance, attrViewRelation} [static]`

Listing of all new edge columns that will be added

```
4.3.2.24 final AttributeType [] graphml.architecture.common.Constants.newColumnsEdgeType = {AttributeType.STRING,
AttributeType.STRING, AttributeType.FLOAT, AttributeType.FLOAT, AttributeType.STRING, AttributeType.FLOAT,
AttributeType.FLOAT, AttributeType.INT} [static]
```

Type of those newcolumns

```
4.3.2.25 final String [] graphml.architecture.common.Constants.newColumnsNode = {attrId, attrRoomType, attrName,
attrCenter, attrCorners, attrWindowExist, attrEnclosedRoom, attrArea, attrLight, attrPrivacy,
attrZone, attrIsCornerNode} [static]
```

Listing of all new node columns that will be added

```
4.3.2.26 final AttributeType [] graphml.architecture.common.Constants.newColumnsNodeType = {AttributeType.STRING,
AttributeType.STRING, AttributeType.STRING, AttributeType.STRING, AttributeType.BOOLEAN,
AttributeType.BOOLEAN, AttributeType.FLOAT, AttributeType.INT, AttributeType.INT, AttributeType.STRING,
AttributeType.BOOLEAN} [static]
```

Listing of the type of the new columns

```
4.3.2.27 final String [] graphml.architecture.common.Constants.roomType = {"ROOM", "KITCHEN", "LIVING", "SLEEPING",
"WORKING", "CORRIDOR", "TOILET", "BATH", "EXTERIOR", "STORAGE", "BUILDINGSERVICES", "CHILDREN",
"PARKING"} [static]
```

Listing of different possible room types according to AGraphML specification

```
4.3.2.28 final String [] graphml.architecture.common.Constants.rows = {"Editing mode", "Groundplan mode"} [static]
```

The two different layout modes

```
4.3.2.29 final URL graphml.architecture.common.Constants.urlAddCorner = Constants.class.getClassLoader().get-
Resource("graphml/architecture/images/cursorAddCorner.png") [static]
```

URL of the cursor for adding a corner

```
4.3.2.30 final URL graphml.architecture.common.Constants.urlAddNode = Constants.class.getClassLoader().get-
Resource("graphml/architecture/images/cursorAddNodeCenter.png") [static]
```

URL of the cursor for adding a node

```
4.3.2.31 final URL graphml.architecture.common.Constants.urlFinishEdge = Constants.class.getClassLoader().get-
Resource("graphml/architecture/images/cursorFinishEdge.png") [static]
```

URL of the cursor for finishing an edge

```
4.3.2.32 final URL graphml.architecture.common.Constants.urlStartEdge = Constants.class.getClassLoader().get-
Resource("graphml/architecture/images/cursorStartEdge.png") [static]
```

URL of the cursor for starting an edge

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/common/Constants.java

## 4.4 graphml.architecture.create.controller.Controller Class Reference

Inherits graphml.architecture.create.controller.Publisher.

### Public Member Functions

- [Controller](#) ()
- void [deleteNode](#) ([MyNode](#) n)
- void [deleteEdge](#) ([MyEdge](#) e)
- void [addEdge](#) ([MyEdge](#) edge)
- void [addNodeStart](#) ()
- void [addNodeEnd](#) ()
- void [addEdgeStart](#) ()
- void [addEdgeEnd](#) ()
- void [abortClicked](#) ()
- void [checkBoxChanged](#) (boolean checked)
- void [finishedClicked](#) ()
- [MyNode](#) [searchNearestNode](#) ([Point](#) p)

### 4.4.1 Detailed Description

This class is the controller with the whole business logic

#### Author

Thomas Stocker

### 4.4.2 Constructor & Destructor Documentation

#### 4.4.2.1 graphml.architecture.create.controller.Controller.Controller ( ) [inline]

Constructor

### 4.4.3 Member Function Documentation

#### 4.4.3.1 void graphml.architecture.create.controller.Controller.abortClicked ( ) [inline]

This method handles the action, when "Abort" is clicked

#### 4.4.3.2 void graphml.architecture.create.controller.Controller.addEdge ( [MyEdge](#) edge ) [inline]

This method adds an edge

#### Parameters

<i>edge</i>	edge to be added
-------------	------------------

#### 4.4.3.3 void graphml.architecture.create.controller.Controller.addEdgeEnd ( ) [inline]

This method notifies, if the capturing of an edge has been aborted by clicking on finish

4.4.3.4 `void graphml.architecture.create.controller.Controller.addEdgeStart ( ) [inline]`

This method starts capturing of an edge

4.4.3.5 `void graphml.architecture.create.controller.Controller.addNodeEnd ( ) [inline]`

This method finished the capturing of a node

4.4.3.6 `void graphml.architecture.create.controller.Controller.addNodeStart ( ) [inline]`

This method sets the tooltip and sets the action for the subscribers

4.4.3.7 `void graphml.architecture.create.controller.Controller.checkBoxChanged ( boolean checked ) [inline]`

This method handles the action, when the checkbox is changed

Parameters

<i>checked</i>	state of the checkbox
----------------	-----------------------

4.4.3.8 `void graphml.architecture.create.controller.Controller.deleteEdge ( MyEdge e ) [inline]`

This method deletes the edge

Parameters

<i>e</i>	the edge to be deleted
----------	------------------------

4.4.3.9 `void graphml.architecture.create.controller.Controller.deleteNode ( MyNode n ) [inline]`

This method deletes a node

Parameters

<i>n</i>	the node to be deleted
----------	------------------------

4.4.3.10 `void graphml.architecture.create.controller.Controller.finishedClicked ( ) [inline]`

This method handles the action, when "finish" is clicked

4.4.3.11 `MyNode graphml.architecture.create.controller.Controller.searchNearestNode ( Point p ) [inline]`

This method searches for the nearest node

Parameters

<i>p</i>	the point around which the node is searched
----------	---

Returns

the nearest node; null if not found

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/controller/Controller.java

## 4.5 graphml.architecture.layout.CustomComboBoxEditor Class Reference

Inherits graphml.architecture.layout.AbstractProjectionPropertyEditor.

### Public Member Functions

- [CustomComboBoxEditor](#) ()

### 4.5.1 Detailed Description

This class is an implementation of the abstract class AbstractProjectionPropertyEditor to provide a ComboBox

#### Author

Thomas Stocker

### 4.5.2 Constructor & Destructor Documentation

#### 4.5.2.1 graphml.architecture.layout.CustomComboBoxEditor.CustomComboBoxEditor ( ) [inline]

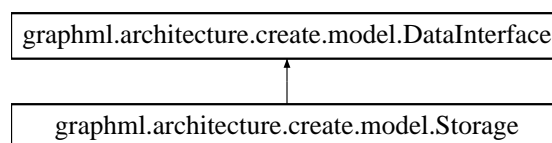
#### Constructor

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/layout/CustomComboBoxEditor.java

## 4.6 graphml.architecture.create.model.DataInterface Interface Reference

Inheritance diagram for graphml.architecture.create.model.DataInterface:



### Public Member Functions

- boolean [initialize](#) ()
- ArrayList< [MyNode](#) > [getNodes](#) ()
- ArrayList< [MyEdge](#) > [getEdges](#) ()
- boolean [addNode](#) ([MyNode](#) n)
- boolean [addEdge](#) ([MyEdge](#) e)
- boolean [deleteNode](#) ([MyNode](#) n)
- boolean [deleteEdge](#) ([MyEdge](#) e)
- boolean [loadDataFromGephi](#) ()

### 4.6.1 Detailed Description

This is the interface for the controller to get the data

#### Author

Thomas Stocker

### 4.6.2 Member Function Documentation

#### 4.6.2.1 `boolean graphml.architecture.create.model.DataInterface.addEdge ( MyEdge e )`

This method adds an edge to gephi

##### Parameters

<i>e</i>	the edge
----------	----------

##### Returns

true if successful, false otherwise

Implemented in [graphml.architecture.create.model.Storage](#).

#### 4.6.2.2 `boolean graphml.architecture.create.model.DataInterface.addNode ( MyNode n )`

This method adds a node to gephi

##### Parameters

<i>n</i>	the node
----------	----------

##### Returns

true if successful, false otherwise

Implemented in [graphml.architecture.create.model.Storage](#).

#### 4.6.2.3 `boolean graphml.architecture.create.model.DataInterface.deleteEdge ( MyEdge e )`

This method deletes an edge from gephi

##### Parameters

<i>e</i>	the edge
----------	----------

##### Returns

true if successful, false otherwise

Implemented in [graphml.architecture.create.model.Storage](#).

#### 4.6.2.4 `boolean graphml.architecture.create.model.DataInterface.deleteNode ( MyNode n )`

This method deletes a node from gephi

## Parameters

<i>n</i>	the node
----------	----------

## Returns

true if successful, false otherwise

Implemented in [graphml.architecture.create.model.Storage](#).

#### 4.6.2.5 ArrayList<MyEdge> graphml.architecture.create.model.DataInterface.getEdges ( )

This method returns all edges

## Returns

list with all edges

Implemented in [graphml.architecture.create.model.Storage](#).

#### 4.6.2.6 ArrayList<MyNode> graphml.architecture.create.model.DataInterface.getNodes ( )

This method returns all nodes

## Returns

list with nodes

Implemented in [graphml.architecture.create.model.Storage](#).

#### 4.6.2.7 boolean graphml.architecture.create.model.DataInterface.initialize ( )

This method initializes the storage and should be called at the beginning

## Returns

true if init was successful, false otherwise

Implemented in [graphml.architecture.create.model.Storage](#).

#### 4.6.2.8 boolean graphml.architecture.create.model.DataInterface.loadDataFromGephi ( )

This method loads all data from Gephi

## Returns

true if successful, false otherwise

Implemented in [graphml.architecture.create.model.Storage](#).

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/model/DataInterface.java

## 4.7 graphml.architecture.create.model.DataLoaderGephi Class Reference

### Public Member Functions

- boolean [initialize](#) ()
- boolean [addNodeToGephi](#) ([MyNode](#) n)
- boolean [addEdgeToGephi](#) ([MyEdge](#) e)
- boolean [deleteNodeFromGephi](#) ([MyNode](#) n)
- boolean [deleteEdgeFromGephi](#) ([MyEdge](#) e)
- [ArrayList](#)< [MyNode](#) > [getNodes](#) ()
- [ArrayList](#)< [MyEdge](#) > [getEdges](#) ([ArrayList](#)< [MyNode](#) > nodes)
- [ArrayList](#)< [MyNode](#) > [getNodesFromGephi](#) ()
- [ArrayList](#)< [MyEdge](#) > [getEdgesFromGephi](#) ([ArrayList](#)< [MyNode](#) > nodes)

### 4.7.1 Detailed Description

This class implements the direct connection to Gephi

#### Author

Thomas Stocker

### 4.7.2 Member Function Documentation

#### 4.7.2.1 boolean graphml.architecture.create.model.DataLoaderGephi.addEdgeToGephi ( [MyEdge](#) e ) [\[inline\]](#)

This method adds an edge

##### Parameters

<a href="#">e</a>	the edge
-------------------	----------

##### Returns

true if successful, false otherwise

#### 4.7.2.2 boolean graphml.architecture.create.model.DataLoaderGephi.addNodeToGephi ( [MyNode](#) n ) [\[inline\]](#)

This method adds a node

##### Parameters

<a href="#">n</a>	the ndoe
-------------------	----------

##### Returns

true if successful, false otherwise

#### 4.7.2.3 boolean graphml.architecture.create.model.DataLoaderGephi.deleteEdgeFromGephi ( [MyEdge](#) e ) [\[inline\]](#)

This method deletes an edge



## Parameters

<i>e</i>	the edge
----------	----------

## Returns

true if successful, false otherwise

#### 4.7.2.4 boolean graphml.architecture.create.model.DataLoaderGephi.deleteNodeFromGephi ( **MyNode** *n* ) [inline]

This method deletes a node

## Parameters

<i>n</i>	the node
----------	----------

## Returns

true if successful, false otherwise

#### 4.7.2.5 ArrayList<MyEdge> graphml.architecture.create.model.DataLoaderGephi.getEdges ( ArrayList< **MyNode** > *nodes* ) [inline]

This method returns all edges (from a temporary copy)

## Parameters

<i>nodes</i>	list with all nodes to create the edge attribute
--------------	--

## Returns

the list with all edges

#### 4.7.2.6 ArrayList<MyEdge> graphml.architecture.create.model.DataLoaderGephi.getEdgesFromGephi ( ArrayList< **MyNode** > *nodes* ) [inline]

This method loads all edges from gephi and converts them suitable for the plugin

## Parameters

<i>nodes</i>	List of all nodes
--------------	-------------------

## Returns

the edge list

#### 4.7.2.7 ArrayList<MyNode> graphml.architecture.create.model.DataLoaderGephi.getNodes ( ) [inline]

This method returns all nodes (from a temporary copy)

## Returns

list of nodes

4.7.2.8 `ArrayList<MyNode> graphml.architecture.create.model.DataLoaderGephi.getNodesFromGephi ( )` `[inline]`

This method loads all nodes from gephi and converts them suitable for the plugin

#### Returns

the node list

4.7.2.9 `boolean graphml.architecture.create.model.DataLoaderGephi.initialize ( )` `[inline]`

This method initializes the connection

#### Returns

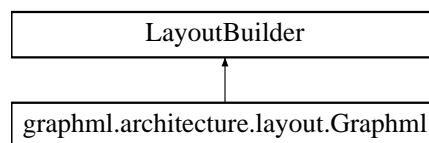
true if successful, false otherwise

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/model/DataLoaderGephi.java

## 4.8 graphml.architecture.layout.Graphml Class Reference

Inheritance diagram for graphml.architecture.layout.Graphml:



### Public Member Functions

- String [getName](#) ()
- Layout [buildLayout](#) ()
- LayoutUI [getUI](#) ()

#### 4.8.1 Detailed Description

This class is the base for the new layout and implements the LayoutBuilder and it opens the layout when initialized.

#### Author

Thomas Stocker

#### 4.8.2 Member Function Documentation

4.8.2.1 `Layout graphml.architecture.layout.Graphml.buildLayout ( )` `[inline]`

Starts the layout

#### Returns

the layout

## 4.8.2.2 String graphml.architecture.layout.Graphml.getName ( ) [inline]

Returns the name of the Layout

Returns

name of the layout

## 4.8.2.3 LayoutUI graphml.architecture.layout.Graphml.getUI ( ) [inline]

Returns the UI

Returns

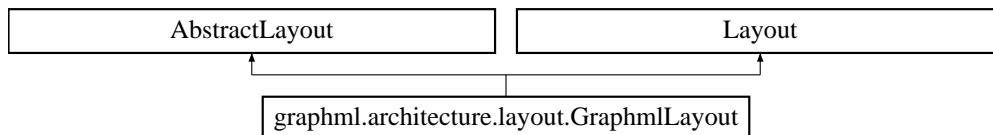
the UI

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/layout/Graphml.java

## 4.9 graphml.architecture.layout.GraphmlLayout Class Reference

Inheritance diagram for graphml.architecture.layout.GraphmlLayout:



### Public Member Functions

- [GraphmlLayout](#) (LayoutBuilder layoutBuilder)
- void [initAlgo](#) ()
- void [goAlgo](#) ()
- boolean [canAlgo](#) ()
- void [endAlgo](#) ()
- LayoutProperty[] [getProperties](#) ()
- String [getMethod](#) ()
- void [setMethod](#) (String visualization)
- void [resetPropertiesValues](#) ()

### 4.9.1 Detailed Description

This class contains the layout

Author

Thomas Stocker

## 4.9.2 Constructor & Destructor Documentation

4.9.2.1 `graphml.architecture.layout.GraphmlLayout.GraphmlLayout ( LayoutBuilder layoutBuilder )` `[inline]`

Constructor

## Parameters

<i>layoutBuilder</i>	the layout builder so that he can be retrieved
----------------------	--

## 4.9.3 Member Function Documentation

4.9.3.1 `boolean graphml.architecture.layout.GraphmlLayout.canAlgo ( )` [inline]

Method to check, if the algo can be executed

## Returns

indicator, if algo can be executed

4.9.3.2 `void graphml.architecture.layout.GraphmlLayout.endAlgo ( )` [inline]

Overridden method that is executed, when the algorithm ends

4.9.3.3 `String graphml.architecture.layout.GraphmlLayout.getMethod ( )` [inline]

This method returns the name of the selected visualization method

## Returns

the name of the method

4.9.3.4 `LayoutProperty [] graphml.architecture.layout.GraphmlLayout.getProperties ( )` [inline]

This method sets the layout-properties (like values etc)

## Returns

the list with all layout properties

4.9.3.5 `void graphml.architecture.layout.GraphmlLayout.goAlgo ( )` [inline]

Overridden method to perform layout

4.9.3.6 `void graphml.architecture.layout.GraphmlLayout.initAlgo ( )` [inline]

Overridden method to initialize the algorithm

4.9.3.7 `void graphml.architecture.layout.GraphmlLayout.resetPropertiesValues ( )` [inline]

This method should reset the properties values (not necessary)

4.9.3.8 `void graphml.architecture.layout.GraphmlLayout.setMethod ( String visualization )` [inline]

This method sets the name of the visualization method

## Parameters

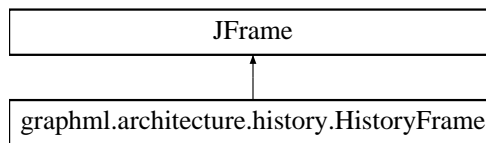
<i>visualization</i>	the name of the method
----------------------	------------------------

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/layout/Graphml-Layout.java

## 4.10 graphml.architecture.history.HistoryFrame Class Reference

Inheritance diagram for graphml.architecture.history.HistoryFrame:



### Public Member Functions

- [HistoryFrame](#) ()

#### 4.10.1 Detailed Description

This class represents the HistoryManager-UI (Parts of this class are generated automatically by NetBeans and therewith don't contain Javadoc-Code)

#### Author

Thomas Stocker

#### 4.10.2 Constructor & Destructor Documentation

##### 4.10.2.1 graphml.architecture.history.HistoryFrame.HistoryFrame ( ) [inline]

Constructor creates new form [HistoryFrame](#)

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/history/History-Frame.java

## 4.11 graphml.architecture.create.controller.ImageLoader Class Reference

### Static Public Member Functions

- static void [loadImage](#) (JFrame f, [ImagePanel](#) imagePanel, [MessageHandler](#) messages)

#### 4.11.1 Detailed Description

This class represents the (static) loading of an image

## Author

Thomas Stocker

## 4.11.2 Member Function Documentation

4.11.2.1 `static void graphml.architecture.create.controller.ImageLoader.loadImage ( JFrame f, ImagePanel imagePanel, MessageHandler messages ) [inline],[static]`

This method loads an image

## Parameters

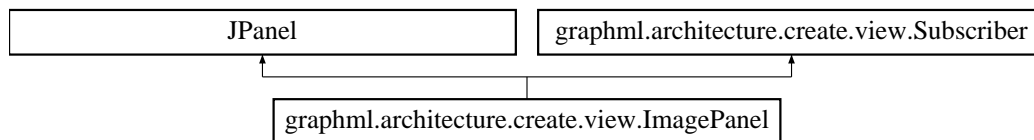
<i>f</i>	Pointer to MainFrame (for messages)
<i>imagePanel</i>	Pointer to the imagePanel to store the image
<i>messages</i>	Pointer to the MessageHandler to publish messages

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/controller/ImageLoader.java

## 4.12 graphml.architecture.create.view.ImagePanel Class Reference

Inheritance diagram for graphml.architecture.create.view.ImagePanel:



## Public Member Functions

- [ImagePanel](#) ([Controller](#) controller)
- void [setImage](#) (BufferedImage image)
- void [setCurrentNode](#) ([MyNode](#) n)
- void [zoom](#) (boolean direction)
- void [updateNodes](#) (ArrayList< [MyNode](#) > room)
- void [updateEdges](#) (ArrayList< [MyEdge](#) > edges)
- double [getScale](#) ()
- void [setCursor](#) (Constants.Cursor cursorType)
- void [setAction](#) (Actions myAction)
- [MyNode](#) [getCurrentNode](#) ()
- void [checkBoxChanged](#) (boolean checked)

## Protected Member Functions

- void [paintComponent](#) (Graphics g)

### 4.12.1 Detailed Description

This class holds the image panel

Author

Thomas

### 4.12.2 Constructor & Destructor Documentation

4.12.2.1 `graphml.architecture.create.view.ImagePanel.ImagePanel ( Controller controller )` `[inline]`

Constructor

### 4.12.3 Member Function Documentation

4.12.3.1 `void graphml.architecture.create.view.ImagePanel.checkBoxChanged ( boolean checked )` `[inline]`

This method handles the event, if the checkbox to fill the rectangle has been changed and updates the view

Parameters

<i>checked</i>	indicator wether the checkbox is checked or not
----------------	---

4.12.3.2 **MyNode** `graphml.architecture.create.view.ImagePanel.getCurrentNode ( )` `[inline]`

This method returns the current node

Returns

the currently edited node

4.12.3.3 `double graphml.architecture.create.view.ImagePanel.getScale ( )` `[inline]`

Gets the current scaling factor

Returns

current scaling factor

4.12.3.4 `void graphml.architecture.create.view.ImagePanel.paintComponent ( Graphics g )` `[inline]`, `[protected]`

This method overrides the paintComponent method to paint the image with its nodes and corners. This method is automatically called when repainted.

Parameters

<i>g</i>	the graphics of the panel
----------	---------------------------

4.12.3.5 `void graphml.architecture.create.view.ImagePanel.setAction ( Actions myAction )` `[inline]`

This method sets the action



## Parameters

<i>myAction</i>	the action type
-----------------	-----------------

4.12.3.6 void graphml.architecture.create.view.ImagePanel.setCurrentNode ( **MyNode** *n* ) [inline]

This method adds the currently added node to be painted

## Parameters

<i>n</i>	the new node
----------	--------------

4.12.3.7 void graphml.architecture.create.view.ImagePanel.setCursor ( **Constants.Cursor** *cursorType* ) [inline]

This method sets the cursor of this panel

## Parameters

<i>cursorType</i>	the type the cursor should have
-------------------	---------------------------------

4.12.3.8 void graphml.architecture.create.view.ImagePanel.setImage ( **BufferedImage** *image* ) [inline]

This method sets the image

## Parameters

<i>image</i>	the image
--------------	-----------

4.12.3.9 void graphml.architecture.create.view.ImagePanel.updateEdges ( **ArrayList< MyEdge >** *edges* ) [inline]

Setter of edge-list

## Parameters

<i>edges</i>	Edge-list
--------------	-----------

Implements [graphml.architecture.create.view.Subscriber](#).

4.12.3.10 void graphml.architecture.create.view.ImagePanel.updateNodes ( **ArrayList< MyNode >** *room* ) [inline]

Setter of room-list

## Parameters

<i>room</i>	Room-list
-------------	-----------

Implements [graphml.architecture.create.view.Subscriber](#).

4.12.3.11 void graphml.architecture.create.view.ImagePanel.zoom ( **boolean** *direction* ) [inline]

Method to zoom into the image

## Parameters

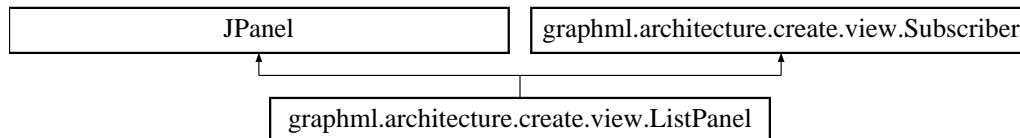
<i>direction</i>	direction of the mouse wheel
------------------	------------------------------

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/view/Image-Panel.java

## 4.13 graphml.architecture.create.view.ListPanel Class Reference

Inheritance diagram for graphml.architecture.create.view.ListPanel:



### Public Member Functions

- [ListPanel](#) ([Controller](#) controller)
- void [updateNodes](#) (ArrayList< [MyNode](#) > n)
- void [updateEdges](#) (ArrayList< [MyEdge](#) > e)
- void [setAction](#) (Constants.Actions myAction)

#### 4.13.1 Detailed Description

This class holds the list panel

##### Author

Thomas Stocker

#### 4.13.2 Constructor & Destructor Documentation

4.13.2.1 `graphml.architecture.create.view.ListPanel.ListPanel ( Controller controller )` `[inline]`

Constructor

#### 4.13.3 Member Function Documentation

4.13.3.1 `void graphml.architecture.create.view.ListPanel.setAction ( Constants.Actions myAction )` `[inline]`

This method from the Publisher-Subscriber-Pattern is not used

##### Parameters

<i>myAction</i>	the action-id
-----------------	---------------

Implements [graphml.architecture.create.view.Subscriber](#).

4.13.3.2 `void graphml.architecture.create.view.ListPanel.updateEdges ( ArrayList< MyEdge > e )` `[inline]`

This method updates the edge lists, if new data is available

Implements [graphml.architecture.create.view.Subscriber](#).

4.13.3.3 void graphml.architecture.create.view.ListPanel.updateNodes ( ArrayList< MyNode > n ) [inline]

This method updates the node lists, if new data is available

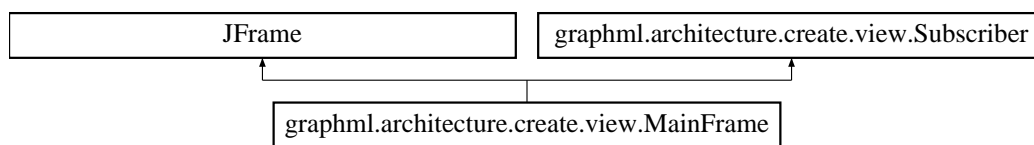
Implements [graphml.architecture.create.view.Subscriber](#).

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/view/ListPanel.java

## 4.14 graphml.architecture.create.view.MainFrame Class Reference

Inheritance diagram for graphml.architecture.create.view.MainFrame:



### Public Member Functions

- [MainFrame](#) ([Controller](#) controller, [MainPanel](#) mPanel)
- void [setAction](#) (Constants.Actions myAction)
- void [updateEdges](#) (ArrayList< [MyEdge](#) > e)
- void [updateNodes](#) (ArrayList< [MyNode](#) > n)

### 4.14.1 Detailed Description

This class is the main JFrame for the creation of the GraphML nodes and edges

Author

Thomas Stocker

### 4.14.2 Constructor & Destructor Documentation

4.14.2.1 [graphml.architecture.create.view.MainFrame.MainFrame](#) ( [Controller](#) controller, [MainPanel](#) mPanel ) [inline]

Constructor

Parameters

<i>controller</i>	connection to controller
<i>mPanel</i>	the main panel to be added to the frame

### 4.14.3 Member Function Documentation

4.14.3.1 void [graphml.architecture.create.view.MainFrame.setAction](#) ( Constants.Actions *myAction* ) [inline]

This method sets the action that shall be performed when the action changes

## Parameters

<i>myAction</i>	the current action
-----------------	--------------------

Implements [graphml.architecture.create.view.Subscriber](#).

4.14.3.2 void [graphml.architecture.create.view.MainFrame.updateEdges](#) ( ArrayList< [MyEdge](#) > *e* ) [inline]

This overridden method is not implemented

## Parameters

<i>e</i>	
----------	--

Implements [graphml.architecture.create.view.Subscriber](#).

4.14.3.3 void [graphml.architecture.create.view.MainFrame.updateNodes](#) ( ArrayList< [MyNode](#) > *n* ) [inline]

This overridden method is not implemented

## Parameters

<i>n</i>	
----------	--

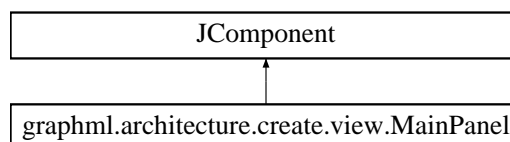
Implements [graphml.architecture.create.view.Subscriber](#).

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/view/MainFrame.java

## 4.15 graphml.architecture.create.view.MainPanel Class Reference

Inheritance diagram for [graphml.architecture.create.view.MainPanel](#):



### Public Member Functions

- [MainPanel](#) ([ImagePanel](#) imagePanel, [ListPanel](#) listPanel)

#### 4.15.1 Detailed Description

This is the main panel with the part for the edges, the image and the status message

#### Author

Thomas Stocker

#### 4.15.2 Constructor & Destructor Documentation

4.15.2.1 `graphml.architecture.create.view.MainPanel.MainPanel ( ImagePanel imagePanel, ListPanel listPanel )`  
`[inline]`

Constructor

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/view/MainPanel.java

## 4.16 graphml.architecture.create.model.MessageHandler Class Reference

### Public Member Functions

- void [setLabel](#) (JLabel l)
- void [setTooltip](#) (String s)

### Static Public Member Functions

- static [MessageHandler getInstance](#) ()
- static void [showWizzardMessage](#) (String s)
- static void [showWizzardMessage](#) (Component c, String s)
- static void [showErrorMessage](#) (String s)

### 4.16.1 Detailed Description

This class is a singleton that is responsible for the message handling

Author

Thomas Stocker

### 4.16.2 Member Function Documentation

4.16.2.1 `static MessageHandler graphml.architecture.create.model.MessageHandler.getInstance ( )` `[inline]`,  
`[static]`

Gets the singleton instance of the [MessageHandler](#)

Returns

the singleton instance

4.16.2.2 `void graphml.architecture.create.model.MessageHandler.setLabel ( JLabel l )` `[inline]`

This method is responsible to set the tooltip Label

Parameters

	/	Tooltip-Label
--	---	---------------

4.16.2.3 `void graphml.architecture.create.model.MessageHandler.setTooltip ( String s )` `[inline]`

This method sets the tooltip label, if the label is set

## Parameters

<b>s</b>	text to be set as tooltip
----------	---------------------------

**4.16.2.4** `static void graphml.architecture.create.model.MessageHandler.showErrorMessage ( String s ) [inline], [static]`

This method shows an error message with the given text

## Parameters

<b>s</b>	text to be displayed
----------	----------------------

**4.16.2.5** `static void graphml.architecture.create.model.MessageHandler.showWizzardMessage ( String s ) [inline], [static]`

This method shows a message dialog with the given string

## Parameters

<b>s</b>	text to be displayed
----------	----------------------

**4.16.2.6** `static void graphml.architecture.create.model.MessageHandler.showWizzardMessage ( Component c, String s ) [inline], [static]`

This method shows a message dialog with the given string

## Parameters

<b>c</b>	Component (as context of the message)
<b>s</b>	text to be displayed

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/model/MessageHandler.java

## 4.17 graphml.architecture.common.MyEdge Class Reference

### Public Member Functions

- [MyEdge](#) ([MyNode](#) node1, [MyNode](#) node2, String edgeType, int id)
- [MyNode](#) [getNode1](#) ()
- [MyNode](#) [getNode2](#) ()
- String [getEdgeType](#) ()
- String [toString](#) ()
- int [getId](#) ()

### 4.17.1 Detailed Description

This class represents an edge between two nodes that will be exported to Gephi

#### Author

Thomas Stocker

## 4.17.2 Constructor & Destructor Documentation

### 4.17.2.1 `graphml.architecture.common.MyEdge.MyEdge ( MyNode node1, MyNode node2, String edgeType, int id )` `[inline]`

The constructor

Parameters

<i>node1</i>	the first node of the edge
<i>node2</i>	the second node of the edge
<i>edgeType</i>	the type of the edge
<i>id</i>	id of the edge

## 4.17.3 Member Function Documentation

### 4.17.3.1 `String graphml.architecture.common.MyEdge.getEdgeType ( )` `[inline]`

This method returns the type of the edge

Returns

the type of the edge

### 4.17.3.2 `int graphml.architecture.common.MyEdge.getId ( )` `[inline]`

This method returns the id of the edge

Returns

id of the edge

### 4.17.3.3 `MyNode graphml.architecture.common.MyEdge.getNode1 ( )` `[inline]`

This method returns the first node of the edge

Returns

the first node

### 4.17.3.4 `MyNode graphml.architecture.common.MyEdge.getNode2 ( )` `[inline]`

This method returns the second node of the edge

Returns

the second node

### 4.17.3.5 `String graphml.architecture.common.MyEdge.toString ( )` `[inline]`

This method returns the corresponding two nodes and the edge type as string and overrides the "toString()" method

**Returns**

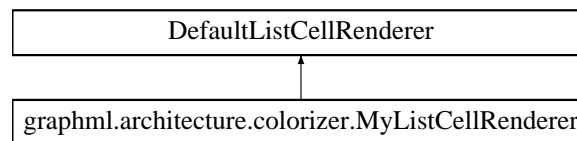
The following String is returned: "Edge from #ID to #ID (#EDGETYPE)"

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/common/My-Edge.java

## 4.18 graphml.architecture.colorizer.MyListCellRenderer Class Reference

Inheritance diagram for graphml.architecture.colorizer.MyListCellRenderer:

**Public Member Functions**

- Component [getListCellRendererComponent](#) (JList list, Object value, int index, boolean isSelected, boolean cellHasFocus)

### 4.18.1 Detailed Description

This class overwrites the ListCellRenderer to allow different background-colors in a table

**Author**

Thomas Stocker

### 4.18.2 Member Function Documentation

4.18.2.1 Component `graphml.architecture.colorizer.MyListCellRenderer.getListCellRendererComponent ( JList list, Object value, int index, boolean isSelected, boolean cellHasFocus )` `[inline]`

Overwritten method to return list cell renderer component

**Parameters**

<i>list</i>	JList for super constructor
<i>value</i>	Object for super constructor
<i>index</i>	Index for super constructor
<i>isSelected</i>	Indicator if value is selected for super constructor
<i>cellHasFocus</i>	Indicator if cell has focus for super constructor

**Returns**

the list cell renderer component

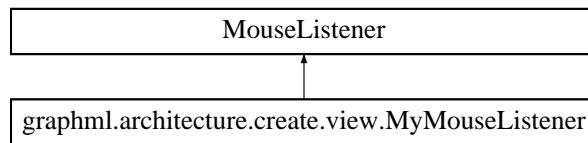
The documentation for this class was generated from the following file:

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/colorizer/My-ListCellRenderer.java



## 4.19 graphml.architecture.create.view.MyMouseListener Class Reference

Inheritance diagram for graphml.architecture.create.view.MyMouseListener:



### Public Member Functions

- [MouseListener](#) ([ImagePanel](#) p, [Controller](#) controller)
- void [mouseClicked](#) ([MouseEvent](#) e)
- void [mouseEntered](#) ([MouseEvent](#) e)
- void [mouseExited](#) ([MouseEvent](#) e)
- void [mousePressed](#) ([MouseEvent](#) e)
- void [mouseReleased](#) ([MouseEvent](#) e)

### 4.19.1 Detailed Description

This mouse listener reacts on all clicks on the image panel

#### Author

Thomas Stocker

### 4.19.2 Constructor & Destructor Documentation

4.19.2.1 `graphml.architecture.create.view.MyMouseListener.MyMouseListener ( ImagePanel p, Controller controller )` `[inline]`

#### Constructor

##### Parameters

<i>p</i>	calling panel
<i>controller</i>	controller object

### 4.19.3 Member Function Documentation

4.19.3.1 `void graphml.architecture.create.view.MyMouseListener.mouseClicked ( MouseEvent e )` `[inline]`

This method defines what happens while clicking the mouse

##### Parameters

<i>e</i>	the <a href="#">MouseEvent</a>
----------	--------------------------------

4.19.3.2 `void graphml.architecture.create.view.MyMouseListener.mouseEntered ( MouseEvent e )` `[inline]`

Not implemented method from [MouseListener](#)

## Parameters

<i>e</i>	
----------	--

4.19.3.3 void graphml.architecture.create.view.MyMouseListener.mouseExited ( MouseEvent *e* ) [inline]

Not implemented method from MouseListener

## Parameters

<i>e</i>	
----------	--

4.19.3.4 void graphml.architecture.create.view.MyMouseListener.mousePressed ( MouseEvent *e* ) [inline]

Not implemented method from MouseListener

## Parameters

<i>e</i>	
----------	--

4.19.3.5 void graphml.architecture.create.view.MyMouseListener.mouseReleased ( MouseEvent *e* ) [inline]

Not implemented method from MouseListener

## Parameters

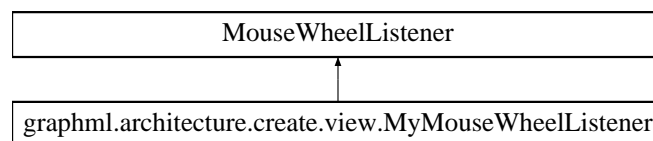
<i>e</i>	
----------	--

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/view/MyMouseListener.java

## 4.20 graphml.architecture.create.view.MyMouseWheelListener Class Reference

Inheritance diagram for graphml.architecture.create.view.MyMouseWheelListener:



### Public Member Functions

- [MyMouseWheelListener](#) (ImagePanel iPanel)
- void [mouseWheelMoved](#) (MouseWheelEvent e)

#### 4.20.1 Detailed Description

This mouse wheel listener overwrites the zooming functionality

## Author

Thomas Stocker

## 4.20.2 Constructor &amp; Destructor Documentation

4.20.2.1 graphml.architecture.create.view.MyMouseWheelListener.MyMouseWheelListener ( *ImagePanel* *iPanel* )  
[inline]

## Constructor

## Parameters

<i>iPanel</i>	imagePanel to zoom in
---------------	-----------------------

## 4.20.3 Member Function Documentation

4.20.3.1 void graphml.architecture.create.view.MyMouseWheelListener.mouseWheelMoved ( *MouseEvent* *e* )  
[inline]

This method overrides the mousewheelMoved-Method to zoom into the image

## Parameters

<i>e</i>	MouseEvent to get the rotation count
----------	--------------------------------------

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/view/MyMouseWheelListener.java

## 4.21 graphml.architecture.common.MyNode Class Reference

## Public Member Functions

- [MyNode](#) (String roomType, long centerX, long centerY, int id)
- [MyNode](#) (String roomType, String center, int id)
- void [addCorner](#) (Point p)
- String [getRoomType](#) ()
- long [getCenterX](#) ()
- long [getCenterY](#) ()
- String [getCenter](#) ()
- ArrayList< Point > [getCorners](#) ()
- int [getId](#) ()
- String [toString](#) ()
- boolean [checkCornersAvailable](#) ()
- String [getCornersAsString](#) ()

## Static Public Member Functions

- static Long [getCenterCoordinateX](#) (String s)
- static Long [getCenterCoordinateY](#) (String s)

### 4.21.1 Detailed Description

This class represents a node, that will exported to gephi

Author

Thomas Stocker

### 4.21.2 Constructor & Destructor Documentation

4.21.2.1 `graphml.architecture.common.MyNode.MyNode ( String roomType, long centerX, long centerY, int id )` [\[inline\]](#)

The constructor

Parameters

<i>roomType</i>	the room type of the node
<i>centerX</i>	the x-coordinate of the node
<i>centerY</i>	the y-coordinate of the node
<i>id</i>	the id of the node

4.21.2.2 `graphml.architecture.common.MyNode.MyNode ( String roomType, String center, int id )` [\[inline\]](#)

Constructor with center as string

Parameters

<i>roomType</i>	the room type of the node
<i>center</i>	the center coordinate as string
<i>id</i>	the id of the node

### 4.21.3 Member Function Documentation

4.21.3.1 `void graphml.architecture.common.MyNode.addCorner ( Point p )` [\[inline\]](#)

This method adds a new corner to the node

Parameters

<i>p</i>	the new corner
----------	----------------

4.21.3.2 `boolean graphml.architecture.common.MyNode.checkCornersAvailable ( )` [\[inline\]](#)

This method checks, if corners are available or if the corner list is empty

Returns

true if there are corners available, false if the list is empty

4.21.3.3 `String graphml.architecture.common.MyNode.getCenter ( )` [\[inline\]](#)

This method returns the X- and Y-Coordinate as string

Returns

the center coordinate as string, seperated by a ','

4.21.3.4 static Long graphml.architecture.common.MyNode.getCenterCoordinateX ( String s ) [inline],[static]

This method splits the center coordinate to retrieve x

**Parameters**

<b>s</b>	the center coordinate
----------	-----------------------

**Returns**

the x coordinate

**4.21.3.5** `static Long graphml.architecture.common.MyNode.getCenterCoordinateY ( String s )` `[inline],[static]`

This method splits the center coordinate to retrieve y

**Parameters**

<b>s</b>	the center coordinate
----------	-----------------------

**Returns**

the y coordinate

**4.21.3.6** `long graphml.architecture.common.MyNode.getCenterX ( )` `[inline]`

This method returns the X-coordinate of the node

**Returns**

the X-coordinate

**4.21.3.7** `long graphml.architecture.common.MyNode.getCenterY ( )` `[inline]`

This method returns the Y-coordinate of the node

**Returns**

the Y-coordinate

**4.21.3.8** `ArrayList<Point> graphml.architecture.common.MyNode.getCorners ( )` `[inline]`

This method returns the ArrayList with all corners

**Returns**

List with all corners of the node

**4.21.3.9** `String graphml.architecture.common.MyNode.getCornersAsString ( )` `[inline]`

This methods transforms the corners of a node as string (to be stored)

**Returns**

the string with all corners (x- and y-coordinate seperated by ","; corners seperated by ";")

4.21.3.10 `int graphml.architecture.common.MyNode.getId ( ) [inline]`

This method returns the node id

## Returns

the node id

4.21.3.11 `String graphml.architecture.common.MyNode.getRoomType ( ) [inline]`

This method returns the room type

## Returns

the room type

4.21.3.12 `String graphml.architecture.common.MyNode.toString ( ) [inline]`

This method returns the node id and its room type as String and overrides the "toString()" method.

## Returns

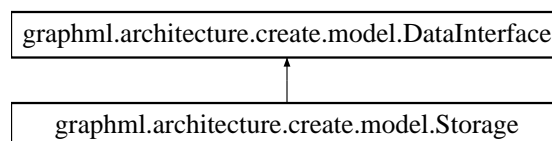
The following String is returned: "Room #ID (#ROOMTYPE)"

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/common/MyNode.java

## 4.22 graphml.architecture.create.model.Storage Class Reference

Inheritance diagram for graphml.architecture.create.model.Storage:



### Public Member Functions

- boolean `initialize ( )`
- boolean `addNode (MyNode n)`
- boolean `addEdge (MyEdge e)`
- boolean `deleteNode (MyNode n)`
- boolean `deleteEdge (MyEdge e)`
- ArrayList< MyNode > `getNodes ( )`
- ArrayList< MyEdge > `getEdges ( )`
- boolean `loadDataFromGephi ( )`

### 4.22.1 Detailed Description

This class manages the storage of the data

#### Author

Thomas Stocker

### 4.22.2 Member Function Documentation

#### 4.22.2.1 `boolean graphml.architecture.create.model.Storage.addEdge ( MyEdge e )` [inline]

This method adds an edge

##### Parameters

<i>e</i>	the edge
----------	----------

##### Returns

true if successful, false otherwise

Implements [graphml.architecture.create.model.DataInterface](#).

#### 4.22.2.2 `boolean graphml.architecture.create.model.Storage.addNode ( MyNode n )` [inline]

This method adds a node

##### Parameters

<i>n</i>	the node
----------	----------

##### Returns

true if successful, false otherwise

Implements [graphml.architecture.create.model.DataInterface](#).

#### 4.22.2.3 `boolean graphml.architecture.create.model.Storage.deleteEdge ( MyEdge e )` [inline]

This method deletes an edge

##### Parameters

<i>e</i>	the edge
----------	----------

##### Returns

true if successful, false otherwise

Implements [graphml.architecture.create.model.DataInterface](#).

#### 4.22.2.4 `boolean graphml.architecture.create.model.Storage.deleteNode ( MyNode n )` [inline]

This method deletes a node



## Parameters

<i>n</i>	the node
----------	----------

## Returns

true if successful, false otherwise

Implements [graphml.architecture.create.model.DataInterface](#).

#### 4.22.2.5 `ArrayList<MyEdge> graphml.architecture.create.model.Storage.getEdges ( ) [inline]`

This method returns all edges

## Returns

list with all edges

Implements [graphml.architecture.create.model.DataInterface](#).

#### 4.22.2.6 `ArrayList<MyNode> graphml.architecture.create.model.Storage.getNodes ( ) [inline]`

This method returns all nodes

## Returns

list with all nodes

Implements [graphml.architecture.create.model.DataInterface](#).

#### 4.22.2.7 `boolean graphml.architecture.create.model.Storage.initialize ( ) [inline]`

This method initializes the storage

## Returns

true if successful, false otherwise

Implements [graphml.architecture.create.model.DataInterface](#).

#### 4.22.2.8 `boolean graphml.architecture.create.model.Storage.loadDataFromGephi ( ) [inline]`

This method loads all data from gephi

## Returns

true if successful, false otherwise

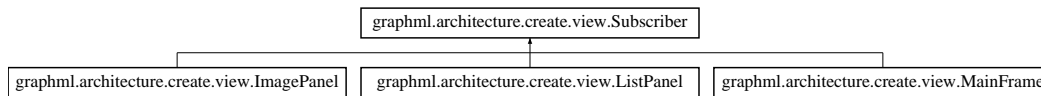
Implements [graphml.architecture.create.model.DataInterface](#).

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/model/Storage.java

## 4.23 graphml.architecture.create.view.Subscriber Interface Reference

Inheritance diagram for graphml.architecture.create.view.Subscriber:



### Public Member Functions

- void [updateEdges](#) (ArrayList< [MyEdge](#) > e)
- void [updateNodes](#) (ArrayList< [MyNode](#) > n)
- void [setAction](#) (Constants.Actions myAction)

#### 4.23.1 Detailed Description

This is a class from the Pubisher-Subscriber-Pattern from the Controller This part handles the subscriber

Author

Thomas

#### 4.23.2 Member Function Documentation

##### 4.23.2.1 void graphml.architecture.create.view.Subscriber.setAction ( Constants.Actions *myAction* )

This method publishes the set action

Parameters

<i>myAction</i>	the action to be done
-----------------	-----------------------

Implemented in [graphml.architecture.create.view.ListPanel](#), and [graphml.architecture.create.view.MainFrame](#).

##### 4.23.2.2 void graphml.architecture.create.view.Subscriber.updateEdges ( ArrayList< [MyEdge](#) > *e* )

This method publishes the updated edges

Parameters

<i>e</i>	list of edges
----------	---------------

Implemented in [graphml.architecture.create.view.ImagePanel](#), [graphml.architecture.create.view.MainFrame](#), and [graphml.architecture.create.view.ListPanel](#).

##### 4.23.2.3 void graphml.architecture.create.view.Subscriber.updateNodes ( ArrayList< [MyNode](#) > *n* )

This method publishes the updated nodes

Parameters

<i>n</i>	list of nodes
----------	---------------

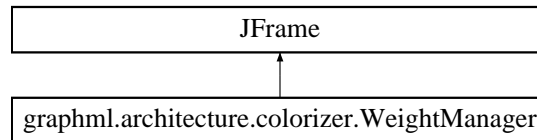
Implemented in [graphml.architecture.create.view.ImagePanel](#), [graphml.architecture.create.view.MainFrame](#), and [graphml.architecture.create.view.ListPanel](#).

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/create/view/Subscriber.java

## 4.24 graphml.architecture.colorizer.WeightManager Class Reference

Inheritance diagram for graphml.architecture.colorizer.WeightManager:



### Public Member Functions

- [WeightManager](#) ()

#### 4.24.1 Detailed Description

This class is responsible for the [WeightManager](#) UI and interaction (Parts of this class are generated automatically by NetBeans and therewith don't contain Javadoc-Code)

Author

Thomas Stocker

#### 4.24.2 Constructor & Destructor Documentation

##### 4.24.2.1 graphml.architecture.colorizer.WeightManager.WeightManager ( ) [inline]

Constructor creates new frame "Colorizer"

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

- C:/Users/Thomas/Documents/gephi-plugins-master/GraphML-Layout/src/graphml/architecture/colorizer/WeightManager.java

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