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# Package pl.eiti.bpelcg

### Class Summary

#### **Activator**

The activator class controls the plug-in life cycle.

#### pl.eiti.bpelcg

# **Class Activator**

#### All Implemented Interfaces:

org.osgi.framework.BundleActivator

```
< Fields > < Constructors > < Methods >
```

#### public class Activator

extends org.eclipse.ui.plugin.AbstractUIPlugin

The activator class controls the plug-in life cycle.

#### **Fields**

#### PLUGIN\_ID

public static final java.lang.String PLUGIN\_ID

### plugin

private static <a href="Activator">Activator</a> plugin

### Constructors

#### **Activator**

```
public Activator()
```

The constructor.

#### **Methods**

### getDefault

```
public static Activator getDefault()
```

Returns the shared instance

Returns:

the shared instance

# getImageDescriptor

```
public static org.eclipse.jface.resource.ImageDescriptor
getImageDescriptor(java.lang.String path)
```

Returns an image descriptor for the image file at the given plug-in relative path

**Parameters:** 

path - the path

Returns:

the image descriptor

#### start

```
public void start(org.osgi.framework.BundleContext context)
```

#### **Overrides:**

start in class org.eclipse.ui.plugin.AbstractUIPlugin

### stop

```
public void stop(org.osgi.framework.BundleContext context)
```

#### **Overrides:**

stop in class org.eclipse.ui.plugin.AbstractUIPlugin

# Package pl.eiti.bpelcg.actions

### Class Summary

#### **CopyGenerateAction**

Action implements workbench action delegate.

#### pl.eiti.bpelcg.actions

# **Class CopyGenerateAction**

#### All Implemented Interfaces:

org.eclipse.ui.IWorkbenchWindowActionDelegate

```
< Fields > < Constructors > < Methods >
```

#### public class CopyGenerateAction

extends java.lang.Object

implements org.eclipse.ui.lWorkbenchWindowActionDelegate

Action implements workbench action delegate. The action proxy will be created by the workbench and shown in the UI. When the user tries to use the action, this delegate will be created and execution will be delegated to it.

**IWorkbenchWindowActionDelegate** 

#### **Fields**

### window

private org.eclipse.ui.IWorkbenchWindow window

### Constructors

### CopyGenerateAction

```
public CopyGenerateAction()
```

The constructor.

#### **Methods**

### dispose

```
public void dispose()
```

We can use this method to dispose of any system resources we previously allocated.

#### findConsole

private org.eclipse.ui.console.MessageConsole findConsole(java.lang.String
name)

Eclipse instance message console finder.

#### init

```
public void init(org.eclipse.ui.IWorkbenchWindow window)
```

We will cache window object in order to be able to provide parent shell for the message dialog.

#### run

```
public void run(org.eclipse.jface.action.IAction action)
```

The action has been activated. The argument of the method represents the 'real' action sitting in the workbench UI.

# selectionChanged

Selection in the workbench has been changed. We can change the state of the 'real' action here if we want, but this can only happen after the delegate has been created.

# Package pl.eiti.bpelcg.analyzer

### Interface Summary

#### **IAnalysisResult**

Generic analysis result structure interface.

#### **IAnalyzer**

Behavior of analyzer for model created from BPEL process.

pl.eiti.bpelcg.analyzer

# Interface IAnalysisResult

< Methods >

public interface IAnalysisResult

Generic analysis result structure interface.

K key type.

V value type as List.

### **Methods**

### get

```
public java.util.List get(java.lang.Object key)
```

Gets value from map for key given as parameter.

Parameters:

key - key to read from map.

Returns:

value from map mapped by a given key.

#### put

Puts a value into a mapped by a key given as parameter.

#### Parameters:

key - key element from map. value - value to put in the map.

#### Returns:

value put into the map.

pl.eiti.bpelcg.analyzer

# **Interface IAnalyzer**

< Methods >

public interface IAnalyzer

Behavior of analyzer for model created from BPEL process.

#### Methods

### analyze

```
public <u>IAnalysisResult</u> analyze()
```

Analyze existing loaded model and give results of the analyze back.

#### Returns:

results of the model analyze

# createCopy

```
public org.eclipse.bpel.model.Copy createCopy()
```

# getAssignActivities

public java.util.List getAssignActivities()

Gets all assign blocks from BPEL process.

#### Returns:

list of assign block of BPEL process

### getProcessVariables

public java.util.List getProcessVariables()

Gets all variables of analyzed BPEL process.

#### Returns:

list of variables of BPEL process

#### init

public void init(java.lang.String pathToBPEL)

Initial method for analyzer to prepare necessary things (load BPEL, WSDLs) to analyze.

#### Parameters:

pathToBPEL - BPEL process file location

# Package pl.eiti.bpelcg.analyzer.impl

### **Class Summary**

#### **AnalysisResult**

Implementation of analysis result created by Analyzer element.

#### **Analyzer**

BPEL graph model analyzer class.

pl.eiti.bpelcg.analyzer.impl

# Class AnalysisResult

#### All Implemented Interfaces:

java.io.Serializable, java.lang.Cloneable, java.util.Map, <u>IAnalysisResult</u>

```
< Fields > < Constructors > < Methods >
```

public class **AnalysisResult** extends java.util.HashMap implements IAnalysisResult

Implementation of analysis result created by Analyzer element. Structure represented by map with assign elements as a keys and list of copy instructions as values mapped by keys.

#### **Fields**

#### serialVersionUID

private static final long serialVersionUID

#### **Constructors**

### **AnalysisResult**

```
public AnalysisResult()
```

#### **Methods**

#### get

```
public java.util.List get(org.eclipse.bpel.model.Assign key)
```

### put

#### **Overrides:**

put in class java.util.HashMap

pl.eiti.bpelcg.analyzer.impl

# **Class Analyzer**

#### All Implemented Interfaces:

**IAnalyzer** 

```
< Fields > < Constructors > < Methods >
```

public class **Analyzer** extends <u>Settings</u> implements <u>IAnalyzer</u>

BPEL graph model analyzer class. Holds references to DAO object - access to BPEL and WSDL files. Analyzes graph model representing BPEL process and finds matches between variables used in BPEL process.

#### **Fields**

#### **FIRST**

private static final java.lang.Integer FIRST

### **bpeIDAO**

#### matcher

private <a href="IMatcher">IMatcher</a> matcher

### model

private <a href="mailto:GraphModel">GraphModel</a> model

#### result

private <a href="IAnalysisResult">IAnalysisResult</a> result

#### transformer

private <a href="mailto:GraphTransformer">GraphTransformer</a> transformer

#### wsdlLoader

private <a href="MSDLDAO">WSdlLoader</a>

# Constructors

# **Analyzer**

public Analyzer()

Default analyzer constructor.

### Methods

# analyze

public <u>IAnalysisResult</u> analyze()

### analyzeFlow

Analyzes parallel paths in graph started from flow node.

#### Parameters:

flowStartNode - node of flow type, has several next nodes settedVariables - list of process variables with value set analysisResult - result of analysis process graph

### analyzeGraphNodes

Analyzes path of graph and retrieves possibilities to create assign activities.

#### Parameters:

rootNode - analyze start node of graph settedVariables - list of process variables with value set result - result of analysis as list of assign block mapped to copy elements to add to assigns

### createCopy

```
public org.eclipse.bpel.model.Copy createCopy()
```

# getAssignActivities

```
public java.util.List getAssignActivities()
```

### getBPELProcess

```
\verb"public org.eclipse.bpel.model.Process getBPELProcess" ()
```

BPEL process getter.

#### Returns:

BPEL process as BPEL Designer EMF object.

### getClosingFlow

private GraphNode getClosingFlow(GraphNode openFlow)

### getModel

```
public GraphModel getModel()
```

Graph model of BPEL process getter.

#### Returns:

BPEL process graph representation.

### getNextInvokes

Retrieves graph searching all of invoke type nodes following node given as parameter.

#### Parameters:

node - currently processing node invokeList - list of node following invoke activities

#### Returns:

list of following node type of invoke

### getProcVariables

private java.util.List getProcVariables(org.eclipse.bpel.model.Variables
variables)

Gets all process variables list from given EObjects set Variables

#### Parameters:

variables - EObject variables

#### Returns:

list all process variables (type of Variable)

### getProcessVariables

```
public java.util.List getProcessVariables()
```

# getSettedVariables

private java.util.List getSettedVariables(java.util.List processVariables)

Gets list of process variables with value already set from all process variables list.

#### Parameters:

process Variables - all process variables list

#### Returns:

process variables list with value set

### init

public void init(java.lang.String pathToBPEL)

#### saveProcess

public void saveProcess()

Delegates BPEL process save.

# Package pl.eiti.bpelcg.dao

### Class Summary

#### **BPELDAO**

Reader class using to load BPEL process file to object model based on org.eclipse.bpel.model package classes.

#### **WSDLDAO**

WSDL DAO (Data Access Object) closes the functionality of loading WSDL files for retrieving messages elements.

#### pl.eiti.bpelcg.dao

# Class BPELDAO

```
< Fields > < Constructors > < Methods >
```

public class **BPELDAO** extends java.lang.Object

Reader class using to load BPEL process file to object model based on org.eclipse.bpel.model package classes.

#### **Fields**

#### **BPELFileLocation**

private java.lang.String BPELFileLocation

### factory

private org.eclipse.emf.ecore.resource.Resource.Factory factory

#### process

private org.eclipse.bpel.model.Process process

#### resource

### **Constructors**

#### **BPELDAO**

public BPELDAO()

Default constructor.

#### **BPELDAO**

public BPELDAO(java.lang.String newBPELFileLocation)

File location set constructor.

Parameters:

newBPELFileLocation - file location

# **Methods**

# getAllAssignBlocks

public java.util.List getAllAssignBlocks()

BPEL process all assign instructions getter.

Returns:

list of all assign instruction from BPEL process.

# getAllReceives

public java.util.List getAllReceives()

Gets receive elements from BPEL process.

Returns:

list of receives from BPEL process.

### getAllVariables

public java.util.List getAllVariables()

Gets all variables from BPEL process.

Returns:

list of BPEL process variables.

### getBPELProcess

public org.eclipse.bpel.model.Process getBPELProcess()

Gets BPEL process reference.

Returns:

BPEL process reference.

# getFactory

public org.eclipse.emf.ecore.resource.Resource.Factory getFactory()

Factory getter.

Returns:

factory object.

### **loadProcess**

public void loadProcess()

BPEL process load method.

#### saveProcess

public java.lang.String saveProcess()

BPEL process save method.

Returns:

saved process name

### setBPELFileLocation

public void setBPELFileLocation(java.lang.String newBPELFileLocation)

BPEL process file location setter.

#### Parameters:

newBPELFileLocation - location of BPEL process file.

#### pl.eiti.bpelcg.dao

# **Class WSDLDAO**

< Fields > < Constructors > < Methods >

public class **WSDLDAO** extends java.lang.Object

WSDL DAO (Data Access Object) closes the functionality of loading WSDL files for retrieving messages elements.

#### Fields

### factory

private org.eclipse.wst.wsdl.util.WSDLResourceFactoryRegistry factory

#### instance

private static WSDLDAO instance

### wsdlMessages

private java.util.List wsdlMessages

### Constructors

#### **WSDLDAO**

```
private WSDLDAO()
```

Default constructor.

### **Methods**

# getInstance

```
public static WSDLDAO getInstance()
```

Gets singleton instance of WSDLDAO object reference.

#### Returns:

reference to WSDL DAO object.

### getMessage

public org.eclipse.wst.wsdl.Message getMessage(javax.xml.namespace.QName
qName)

Gets message with given qName element.

#### **Parameters:**

qName - query name.

#### Returns:

WSDL message element.

# getMessages

```
public java.util.List getMessages()
```

Gets list of all messages loaded.

#### Returns:

list of messages loaded by DAO object.

#### load

WSDL load method.

#### Parameters:

importLocations - WSDL files path list absolutePath - absolute path to BPEL process file

#### **loadWSDL**

private org.eclipse.wst.wsdl.util.WSDLResourceImpl loadWSDL(java.lang.String location)

Single WSDL file load method.

#### Parameters:

location - absolute WSDL file path

#### Returns:

WSDL loaded

# Package pl.eiti.bpelcg.matcher

### Interface Summary

#### **IMatcher**

Behavior of element used to finding matches between BPEL process elements for generation of copy instructions in the process.

#### pl.eiti.bpelcg.matcher

# **Interface IMatcher**

< Methods >

public interface IMatcher

Behavior of element used to finding matches between BPEL process elements for generation of copy instructions in the process.

#### **Methods**

# createCopyForMatchedVariables

followingInvokes)

Finds all variables from given list that match (with name and type) to any input variables of invokes from given list.

#### Parameters:

settedVariables - list of variables that can be used as invoke call parameters followingInvokes - list of invoke activities following currently processed assign activity

# Package pl.eiti.bpelcg.matcher.impl

### Class Summary

#### **DefaultMatcher**

Default plugin matcher using simple rule for searching matches between variables which checks equality of names and types.

#### **DefaultMatcher.SimpleMessageElement**

Simple structure - keeps pairs of messages that match.

pl.eiti.bpelcg.matcher.impl

# Class DefaultMatcher

#### All Implemented Interfaces:

**IMatcher** 

```
< Fields > < Constructors > < Methods >
```

public class **DefaultMatcher** extends <u>Settings</u> implements <u>IMatcher</u>

Default plugin matcher using simple rule for searching matches between variables which checks equality of names and types.

#### **Fields**

#### wsdlLoader

WSDLDAO wsdlLoader

#### wsdlResolver

WSDLResolver wsdlResolver

### Constructors

#### DefaultMatcher

```
public DefaultMatcher()
```

Default constructor used for get instances of singleton WSDL DAO and resolver elements.

#### **Methods**

# createCopyForMatchedVariables

### isMatching

Checks if simple type variables given as parameters are matching.

#### Parameters:

varTo - simple type variable to copy to varFrom - simple type variable to copy from

#### **Returns:**

boolean type information if parameters are matching

### retrieveComplexTypeMatching

```
private java.util.List
retrieveComplexTypeMatching(org.eclipse.bpel.model.Variable varToCopyFrom,
org.eclipse.bpel.model.Variable varToCopyTo)
```

Retrieves all matchings between simple types that variables given as parameters includes.

#### **Parameters:**

```
varToCopyFrom - complex type variable to copy from varToCopyTo - complex type variable to copy to
```

#### Returns:

list of copy elements

### retrieveSimpleToComplexTypeMatching

Retrieves all matchings between simple type variable given as parameter and complex type elements variable with additional switch that inform if it will be copy from simple to complex type or from complex to simple type.

#### Parameters:

simpleTypeVar - simple type variable complexTypeVar - complex type variable fromSimpleToComplex - switch that determines copy instruction direction

#### Returns:

list of copy elements

pl.eiti.bpelcg.matcher.impl

# Class DefaultMatcher.SimpleMessageElement

< Fields > < Constructors >

private class **DefaultMatcher.SimpleMessageElement** extends java.lang.Object

Simple structure - keeps pairs of messages that match.

#### **Fields**

## fromSimpleMessage

public java.lang.String fromSimpleMessage

### toSimpleMessage

public java.lang.String toSimpleMessage

# Constructors

# DefaultMatcher.SimpleMessageElement

private DefaultMatcher.SimpleMessageElement()

# Package pl.eiti.bpelcg.model

# Interface Summary

**IModel** 

Model behavior interface.

pl.eiti.bpelcg.model

# **Interface IModel**

public interface IModel

Model behavior interface.

# Package pl.eiti.bpelcg.model.graph

# Class Summary

#### **Graph**

Graph implementation with root node selected.

#### **GraphNode**

Graph node element implementation.

#### **GraphNode.State**

Enumerated list of graph node states.

#### pl.eiti.bpelcg.model.graph

# **Class Graph**

#### **Direct Known Subclasses:**

GraphModel

```
< Fields > < Constructors > < Methods >
```

public class **Graph** extends java.lang.Object

Graph implementation with root node selected.

T graph nodes type

### **Fields**

#### root

```
private <u>GraphNode</u> root
Graph root element
```

### Constructors

### Graph

```
public Graph()
```

Graph default constructor.

### Graph

```
public Graph(java.lang.Object data)
```

Constructor creating new node from given data.

Parameters:

data - node data element

# Graph

```
public Graph(GraphNode rootNode)
```

Constructor setting given graph node as root.

Parameters:

rootNode - node element to set as root element

### **Methods**

# getRoot

```
public GraphNode getRoot()
```

Graph root element getter.

Returns:

root node

### setRoot

```
public void setRoot(GraphNode rootNode)
```

Graph root element setter.

Parameters:

rootNode - node to set as graph root

#### pl.eiti.bpelcg.model.graph

# Class GraphNode

```
< Fields > < Constructors > < Methods >
```

public class **GraphNode** extends java.lang.Object

Graph node element implementation.

T type of node data

#### **Fields**

#### data

private java.lang.Object data

#### nextNodes

private java.util.List nextNodes

# previousNodes

private java.util.List previousNodes

#### state

private <a href="mailto:GraphNode.State">GraphNode.State</a> <a href="mailto:state">state</a>

#### Constructors

### **GraphNode**

public GraphNode(java.lang.Object newData)

Graph node data set constructor.

#### **Parameters:**

newData - graph node data element to set

### **Methods**

#### addNextNode

public void addNextNode(GraphNode nextNode)

Adds next node to list of next nodes.

Parameters:

nextNode - node to add.

#### addPreviousNode

public void addPreviousNode(GraphNode previousNode)

Adds previous node to list of previous nodes.

Parameters:

previousNode - node to add.

# getData

public java.lang.Object getData()

Gets data of node.

Returns:

node data element.

### getNextNodes

public java.util.List getNextNodes()

Gets next nodes list.

Returns:

list of nodes.

### getPreviousNodes

```
public java.util.List getPreviousNodes()
```

Gets previous nodes list.

Returns:

list of nodes.

### getState

```
public GraphNode.State getState()
```

Gets state of node.

Returns:

enumerated state.

#### hasNext

```
public java.lang.Boolean hasNext()
```

Next element existing check.

Returns:

next element existing bool value

#### hasPrevious

```
public java.lang.Boolean hasPrevious()
```

Previous element existing check.

Returns:

previous element existing bool value

### isBranched

```
public java.lang.Boolean isBranched()
```

Multiple next elements check.

Returns:

many next elements existing bool value

### **isProcessing**

```
public java.lang.Boolean isProcessing()
```

Processed check.

Returns:

if is processing

#### isUnvisited

public java.lang.Boolean isUnvisited()

Unvisited check.

Returns:

if was not visited

#### **isVisited**

public java.lang.Boolean isVisited()

Visited check.

Returns:

if was visited

### setNextNodes

public void setNextNodes(java.util.List nextNodes)

Sets next nodes list.

Parameters:

nextNodes - list of nodes.

### setPreviousNodes

public void setPreviousNodes(java.util.List previousNodes)

Sets previous nodes list.

Parameters:

previousNodes - list of nodes.

# setProcessing

public void setProcessing()

Processed state setter.

#### setUnvisited

public void setUnvisited()

Unvisited state setter.

#### setVisited

public void setVisited()

Visited state setter.

#### pl.eiti.bpelcg.model.graph

# Class GraphNode.State

#### All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable

```
< Fields > < Constructors > < Methods >
```

static final class **GraphNode.State** extends java.lang.Enum

Enumerated list of graph node states.

#### **Fields**

#### **PROCESSING**

public static final GraphNode.State PROCESSING

#### UNVISITED

public static final GraphNode.State UNVISITED

### **VISITED**

public static final GraphNode.State VISITED

# Constructors

# **GraphNode.State**

private GraphNode.State()

# Methods

### valueOf

public static GraphNode.State valueOf(java.lang.String name)

### values

public static pl.eiti.bpelcg.model.graph.GraphNode.State[] values()

# Package pl.eiti.bpelcg.model.impl

# Class Summary

#### **GraphModel**

Graph model with nodes org.eclipse.bpel.model.Activity type.

pl.eiti.bpelcg.model.impl

# Class GraphModel

#### All Implemented Interfaces:

**IModel** 

< Constructors >

public class **GraphModel** extends <u>Graph</u> implements <u>IModel</u>

Graph model with nodes org.eclipse.bpel.model.Activity type.

### Constructors

### **GraphModel**

```
public GraphModel()
```

Default graph model constructor.

## Package pl.eiti.bpelcg.resolver

## **Class Summary**

#### **WSDLResolver**

WSDL resolver used to retrieving information about complex and simple types defined in WSDL and used to communication with service which interface describes WSDL document.

pl.eiti.bpelcg.resolver

## Class WSDLResolver

```
< Fields > < Constructors > < Methods >
```

public class **WSDLResolver** extends <u>Settings</u>

WSDL resolver used to retrieving information about complex and simple types defined in WSDL and used to communication with service which interface describes WSDL document.

## **Fields**

## instance

private static <a href="WSDLResolver">WSDLResolver</a> instance

## Constructors

## **WSDLResolver**

```
private WSDLResolver()
```

## **Methods**

## getInstance

public static WSDLResolver getInstance()

## resolveMessageType

public java.util.Map resolveMessageType(org.eclipse.wst.wsdl.Message
complexMessageType)

Resolves message type to map part element to elements included in part element.

#### Parameters:

complexType - complex type message

#### Returns:

map of message part elements to list of elements within selected part element

## retrieveElements

public java.util.List retrieveElements(org.eclipse.wst.wsdl.Message complexType)

Retrieves all elements of given complex type message and create concatenated information about them delimited by M\_LIMITER defined in Settings class (MessagePartName/delimiter/xsdElementTypeName/delimiter/xsdElementName).

#### Parameters:

complexType - defined in WSDL complex type message

#### Returns:

list of concatenated information about elements

# Package pl.eiti.bpelcg.transformer

## Interface Summary

#### **IProcessTransformer**

Factory transformer of BPEL Process to model and model to BPEL Process behavior.

pl.eiti.bpelcg.transformer

## Interface IProcessTransformer

< Methods >

public interface IProcessTransformer

Factory transformer of BPEL Process to model and model to BPEL Process behavior.

#### **Methods**

## processToModel

public <u>IModel</u> processToModel(org.eclipse.bpel.model.Process process)

BPEL process to model declaration.

**Parameters:** 

process - process element to transform

Returns:

model created from process

# Package pl.eiti.bpelcg.transformer.impl

## **Class Summary**

#### **GraphTransformer**

Singleton concrete factory class for producing Graph model from BPEL process, and update BPEL process from Graph model.

#### pl.eiti.bpelcg.transformer.impl

# **Class GraphTransformer**

#### All Implemented Interfaces:

<u>IProcessTransformer</u>

```
< Fields > < Constructors > < Methods >
```

public class **GraphTransformer** extends java.lang.Object implements <u>IProcessTransformer</u>

Singleton concrete factory class for producing Graph model from BPEL process, and update BPEL process from Graph model.

#### **Fields**

## instance

private static <a href="mailto:GraphTransformer">GraphTransformer</a> instance

## Constructors

## **GraphTransformer**

```
private GraphTransformer()
```

Default constructor.

## **Methods**

## createGraphModel

Graph model creator.

#### Parameters:

process - process to create model from model - model element to build with a method

#### **executeCreate**

Model creation executor, recursive for complex activities.

#### Parameters:

previous - node created previously closingNode - complex activities complex nodes

## getInstance

public static GraphTransformer getInstance()

Graph transformer instance getter.

#### Returns:

graph transformer instance reference

## processToModel

public <u>IModel</u> processToModel(org.eclipse.bpel.model.Process process)

# Package pl.eiti.bpelcg.ui

## **Class Summary**

#### **AnalyzerWizard**

Wizard element of the plugin, lets edit BPEL process assign elements.

#### **AssignPage**

Assign instructions edit wizard page.

#### AssignPage.AssignSelectionListener

Instance of selection listener class that listening for select on Assign blocks list element.

#### AssignPage.CopySelectionListener

Instance of selection listener that listening for select on Copy elements list.

#### AssignPage.DeleteCopySelectionListener

Delete copy instruction command listener.

#### AssignPage.FromElementSelectionListener

Instance of selection listener that listening for select on copy from element.

#### AssignPage.FromTypeSelectionListener

Instance of selection listener that listening for select on copy from type combo.

#### AssignPage.MoveDownSelectionListener

Move down command listener.

#### AssignPage.MoveUpSelectionListener

Move up command listener.

#### AssignPage.NewCopySelectionListener

Add copy instruction command listener.

#### <u>AssignPage.ToElementSelectionListener</u>

Instance of selection listener that listening for select on copy to element.

#### <u>AssignPage.ToTypeSelectionListener</u>

Instance of selection listener that listening for select on copy to type combo.

#### **InfoPage**

# Class AnalyzerWizard

#### All Implemented Interfaces:

org.eclipse.jface.wizard.lWizard

```
< Fields > < Constructors > < Methods >
```

public class AnalyzerWizard

extends org.eclipse.jface.wizard.Wizard

Wizard element of the plugin, lets edit BPEL process assign elements.

## **Fields**

## assignPage

protected AssignPage assignPage

## infoPage

protected <a href="InfoPage">InfoPage</a>

## wizardController

private <u>AnalyzerWizardController</u> wizardController

## wizardModel

private AnalyzerWizardModel wizardModel

## Constructors

## **AnalyzerWizard**

public AnalyzerWizard(java.lang.String pathToBPEL)

Constructor getting path to analyzed BPEL file.

#### Parameters:

pathToBPEL - path to file with process description.

## Methods

## addPages

public void addPages()

#### Overrides:

addPages in class org.eclipse.jface.wizard.Wizard

## canFinish

public boolean canFinish()

#### Overrides:

canFinish in class org.eclipse.jface.wizard.Wizard

## performFinish

public boolean performFinish()

#### **Overrides:**

performFinish in class org.eclipse.jface.wizard.Wizard

# Class AssignPage

#### All Implemented Interfaces:

org.eclipse.jface.dialogs.IDialogPage, org.eclipse.jface.dialogs.IMessageProvider, org.eclipse.jface.wizard.IWizardPage

```
< Fields > < Constructors > < Methods >
```

public class **AssignPage** extends org.eclipse.jface.wizard.WizardPage

Assign instructions edit wizard page.

#### **Fields**

## assignContainer

private org.eclipse.swt.widgets.Composite assignContainer

## assignList

private org.eclipse.swt.widgets.List assignList

## controller

private AnalyzerWizardController controller

## copyButtonContainer

private org.eclipse.swt.widgets.Composite copyButtonContainer

## copyContainer

private org.eclipse.swt.widgets.Composite copyContainer

## copyElemList

private org.eclipse.swt.widgets.List copyElemList

## copyFromCombo

private org.eclipse.swt.widgets.Combo copyFromCombo

## copyFromComboContainer

private org.eclipse.swt.widgets.Composite copyFromComboContainer

## copyFromContainer

private org.eclipse.swt.widgets.Composite copyFromContainer

## copyFromLabel

private org.eclipse.swt.widgets.Label copyFromLabel

## copyFromList

private org.eclipse.swt.widgets.Tree copyFromList

## copyListContainer

private org.eclipse.swt.widgets.Composite copyListContainer

## copyToCombo

private org.eclipse.swt.widgets.Combo copyToCombo

## copyToComboContainer

private org.eclipse.swt.widgets.Composite copyToComboContainer

## copyToContainer

## copyToLabel

private org.eclipse.swt.widgets.Label copyToLabel

## copyToList

private org.eclipse.swt.widgets.Tree copyToList

#### delButton

private org.eclipse.swt.widgets.Button delButton

#### dev

private org.eclipse.swt.widgets.Display dev

## generatedMarker

private org.eclipse.swt.widgets.List generatedMarker

## isExpandEvent

private java.lang.Boolean isExpandEvent

## mainContainer

private org.eclipse.swt.widgets.Composite mainContainer

## model

private <a href="mailto:AnalyzerWizardModel">AnalyzerWizardModel</a> model

## moveDownButton

private org.eclipse.swt.widgets.Button moveDownButton

## moveUpButton

private org.eclipse.swt.widgets.Button moveUpButton

## newButton

private org.eclipse.swt.widgets.Button newButton

#### Constructors

## **AssignPage**

Constructor setting references to model and controller of the wizard.

#### **Parameters:**

pageName - name of wizard page. newController - wizard controller. newModel - wizard model.

## **Methods**

## addDataToCombo

## createControl

public void createControl(org.eclipse.swt.widgets.Composite parent)

## unexpandTree

private void unexpandTree(org.eclipse.swt.widgets.Tree treeElem)

Expands tree element.

#### Parameters:

treeElem - tree to expand.

# Class AssignPage.AssignSelectionListener

#### All Implemented Interfaces:

org.eclipse.swt.events.SelectionListener

```
< Constructors > < Methods >
```

private class **AssignPage.AssignSelectionListener** extends java.lang.Object implements org.eclipse.swt.events.SelectionListener

Instance of selection listener class that listening for select on Assign blocks list element.

#### Constructors

## AssignPage.AssignSelectionListener

private AssignPage.AssignSelectionListener()

## **Methods**

## widgetDefaultSelected

public void widgetDefaultSelected(org.eclipse.swt.events.SelectionEvent arg0)

## widgetSelected

# Class AssignPage.CopySelectionListener

#### All Implemented Interfaces:

org.eclipse.swt.events.SelectionListener

```
< Constructors > < Methods >
```

private class **AssignPage.CopySelectionListener** extends java.lang.Object implements org.eclipse.swt.events.SelectionListener

Instance of selection listener that listening for select on Copy elements list.

## Constructors

## AssignPage.CopySelectionListener

private AssignPage.CopySelectionListener()

## **Methods**

## createVarTree

private void createVarTree(org.eclipse.swt.widgets.Tree parent)

Creates tree element for variable of complex type.

#### Parameters:

parent - parent tree element.

## getItemWithName

Find element with given name in tree.

#### Parameters:

parent - parent tree element to searching. name - name of element to find in tree.

#### Returns:

item with given name.

## widgetDefaultSelected

public void widgetDefaultSelected(org.eclipse.swt.events.SelectionEvent arg0)

## widgetSelected

public void widgetSelected(org.eclipse.swt.events.SelectionEvent arg0)

pl.eiti.bpelcg.ui

# Class AssignPage.DeleteCopySelectionListener

#### All Implemented Interfaces:

org.eclipse.swt.events.SelectionListener

```
< Constructors > < Methods >
```

private class **AssignPage.DeleteCopySelectionListener** extends java.lang.Object implements org.eclipse.swt.events.SelectionListener

Delete copy instruction command listener.

## Constructors

## AssignPage.DeleteCopySelectionListener

private AssignPage.DeleteCopySelectionListener()

## **Methods**

## widgetDefaultSelected

public void widgetDefaultSelected(org.eclipse.swt.events.SelectionEvent arg0)

## widgetSelected

public void widgetSelected(org.eclipse.swt.events.SelectionEvent arg0)

pl.eiti.bpelcg.ui

# Class AssignPage.FromElementSelectionListener

#### All Implemented Interfaces:

org.eclipse.swt.events.SelectionListener

< Constructors > < Methods >

private class **AssignPage.FromElementSelectionListener** extends java.lang.Object implements org.eclipse.swt.events.SelectionListener

Instance of selection listener that listening for select on copy from element.

## Constructors

## AssignPage.FromElementSelectionListener

private AssignPage.FromElementSelectionListener()

## **Methods**

## widgetDefaultSelected

public void widgetDefaultSelected(org.eclipse.swt.events.SelectionEvent arg0)

## widgetSelected

public void widgetSelected(org.eclipse.swt.events.SelectionEvent arg0)

pl.eiti.bpelcg.ui

# Class AssignPage.FromTypeSelectionListener

#### All Implemented Interfaces:

org.eclipse.swt.events.SelectionListener

```
< Constructors > < Methods >
```

private class **AssignPage.FromTypeSelectionListener** extends java.lang.Object implements org.eclipse.swt.events.SelectionListener

Instance of selection listener that listening for select on copy from type combo.

## **Constructors**

## AssignPage.FromTypeSelectionListener

private AssignPage.FromTypeSelectionListener()

## **Methods**

## widgetDefaultSelected

public void widgetDefaultSelected(org.eclipse.swt.events.SelectionEvent arg0)

## widgetSelected

public void widgetSelected(org.eclipse.swt.events.SelectionEvent arg0)

pl.eiti.bpelcg.ui

# Class AssignPage.MoveDownSelectionListener

#### All Implemented Interfaces:

org.eclipse.swt.events.SelectionListener

```
< Constructors > < Methods >
```

private class **AssignPage.MoveDownSelectionListener** extends java.lang.Object implements org.eclipse.swt.events.SelectionListener

Move down command listener.

## **Constructors**

## AssignPage.MoveDownSelectionListener

private AssignPage.MoveDownSelectionListener()

## **Methods**

## widgetDefaultSelected

## widgetSelected

public void widgetSelected(org.eclipse.swt.events.SelectionEvent arg0)

pl.eiti.bpelcg.ui

# Class AssignPage.MoveUpSelectionListener

#### All Implemented Interfaces:

org.eclipse.swt.events.SelectionListener

```
< Constructors > < Methods >
```

private class **AssignPage.MoveUpSelectionListener** extends java.lang.Object implements org.eclipse.swt.events.SelectionListener

Move up command listener.

## **Constructors**

## AssignPage.MoveUpSelectionListener

private AssignPage.MoveUpSelectionListener()

## **Methods**

## widgetDefaultSelected

public void widgetDefaultSelected(org.eclipse.swt.events.SelectionEvent arg0)

## widgetSelected

# Class AssignPage.NewCopySelectionListener

#### All Implemented Interfaces:

org.eclipse.swt.events.SelectionListener

```
< Constructors > < Methods >
```

private class **AssignPage.NewCopySelectionListener** extends java.lang.Object implements org.eclipse.swt.events.SelectionListener

Add copy instruction command listener.

## Constructors

## AssignPage.NewCopySelectionListener

private AssignPage.NewCopySelectionListener()

## **Methods**

## widgetDefaultSelected

public void widgetDefaultSelected(org.eclipse.swt.events.SelectionEvent arg0)

## widgetSelected

# Class AssignPage.ToElementSelectionListener

#### All Implemented Interfaces:

org.eclipse.swt.events.SelectionListener

< Constructors > < Methods >

private class **AssignPage.ToElementSelectionListener** extends java.lang.Object implements org.eclipse.swt.events.SelectionListener

Instance of selection listener that listening for select on copy to element.

## Constructors

## AssignPage.ToElementSelectionListener

private AssignPage.ToElementSelectionListener()

## **Methods**

## widgetDefaultSelected

public void widgetDefaultSelected(org.eclipse.swt.events.SelectionEvent arg0)

## widgetSelected

# Class AssignPage.ToTypeSelectionListener

#### All Implemented Interfaces:

org.eclipse.swt.events.SelectionListener

```
< Constructors > < Methods >
```

private class **AssignPage.ToTypeSelectionListener** extends java.lang.Object implements org.eclipse.swt.events.SelectionListener

Instance of selection listener that listening for select on copy to type combo.

## Constructors

## AssignPage.ToTypeSelectionListener

private AssignPage.ToTypeSelectionListener()

## **Methods**

## widgetDefaultSelected

public void widgetDefaultSelected(org.eclipse.swt.events.SelectionEvent arg0)

## widgetSelected

# Class InfoPage

#### All Implemented Interfaces:

org.eclipse.jface.dialogs.IDialogPage, org.eclipse.jface.dialogs.IMessageProvider, org.eclipse.jface.wizard.IWizardPage

```
< Fields > < Constructors > < Methods >
```

public class **InfoPage** extends org.eclipse.jface.wizard.WizardPage

#### **Fields**

## container

private org.eclipse.swt.widgets.Composite container

## controller

private <u>AnalyzerWizardController</u> controller

## model

private AnalyzerWizardModel model

## **Constructors**

## **InfoPage**

## Methods

## canFlipToNextPage

public boolean canFlipToNextPage()

#### Overrides:

canFlipToNextPage in class org.eclipse.jface.wizard.WizardPage

## createControl

public void createControl(org.eclipse.swt.widgets.Composite parent)

## getNextPage

public org.eclipse.jface.wizard.IWizardPage getNextPage()

#### Overrides:

getNextPage in class org.eclipse.jface.wizard.WizardPage

# Package pl.eiti.bpelcg.ui.controller

## **Class Summary**

#### **AnalyzerWizardController**

Controller of plugin wizard.

pl.eiti.bpelcg.ui.controller

# Class AnalyzerWizardController

```
< Fields > < Constructors > < Methods >
```

public class **AnalyzerWizardController** extends java.lang.Object

Controller of plugin wizard.

## **Fields**

## analysisResult

private <u>IAnalysisResult</u> analysisResult

## analyzer

private <u>IAnalyzer</u> analyzer

## model

private <a href="mailto:AnalyzerWizardModel">AnalyzerWizardModel</a> model

## pathToBPEL

private java.lang.String pathToBPEL

## updater

#### Constructors

## AnalyzerWizardController

public AnalyzerWizardController()

Default wizard controller constructor.

## AnalyzerWizardController

Custom wizard controller constructor.

#### Parameters:

pathToFile - path to BPEL file. newModel - wizard model reference.

## **Methods**

## addNewCopy

public void addNewCopy()

Adds new copy element.

## createFromVarPart

public org.eclipse.bpel.model.From createFromVarPart(java.util.List elements)

Creates from element.

#### Parameters:

elements - concatenated message information.

#### Returns:

BPEL from element.

## createToVarPart

public org.eclipse.bpel.model.To createToVarPart(java.util.List elements)

Creates to element.

Parameters:

elements - concatenated message information.

Returns:

BPEL to element.

## deleteCopy

public void deleteCopy(int selectionIndex)

Deletes selected copy element.

Parameters:

selectionIndex - index of element to delete.

## executeAnalyze

public void executeAnalyze()

Executes BPEL process analyze.

## executeUpdate

public void executeUpdate()

Executes BPEL process update.

## generateMarkers

public void generateMarkers(int index)

Generates new copy elements marker list.

Parameters:

index - assign element index.

## getAssignBlockList

public java.util.List getAssignBlockList()

Gets all assign instruction from the process.

#### Returns:

list of assigns.

## moveDownCopy

public void moveDownCopy(int copySelectionIndex)

Moves down copy elements.

#### **Parameters:**

copySelectionIndex - copy instruction to move down index.

## moveUpCopy

public void moveUpCopy(int copySelectionIndex)

Moves up copy elements.

#### Parameters:

copySelectionIndex - copy instruction to move up index.

## resolveMessageType

public java.util.Map resolveMessageType(org.eclipse.wst.wsdl.Message complexType)

Delegates resolve of the complex type message.

#### Parameters:

complexType - complex type message.

#### Returns:

resolved message information (structured form using map).

## saveProcess

```
public void saveProcess()
```

Delegates BPEL process save command.

# Package pl.eiti.bpelcg.ui.model

## **Class Summary**

<u>AnalyzerWizardModel</u>

pl.eiti.bpelcg.ui.model

# Class AnalyzerWizardModel

```
< <u>Fields</u> > < <u>Constructors</u> > < <u>Methods</u> >
```

public class **AnalyzerWizardModel** extends java.lang.Object

#### **Fields**

## assignList

private java.util.List assignList

## copyList

private java.util.List copyList

## currentlyProcessingAssign

private org.eclipse.bpel.model.Assign currentlyProcessingAssign

## currentlyProcessingCopy

private org.eclipse.bpel.model.Copy currentlyProcessingCopy

## fromComboList

private java.util.List fromComboList

### markers

private java.util.List markers

## processVariables

private java.util.List processVariables

## toComboList

private java.util.List toComboList

## Constructors

## **AnalyzerWizardModel**

public AnalyzerWizardModel()

## **Methods**

## asText

private java.lang.String asText(org.eclipse.emf.ecore.EObject elem)

## getAssignList

public java.util.List getAssignList()

## getAssignNameList

public java.util.List getAssignNameList()

## getCopyList

public java.util.List getCopyList()

## getCopyListNames

public java.util.List getCopyListNames(int index)

## getCurrentlyProcessingAssign

public org.eclipse.bpel.model.Assign getCurrentlyProcessingAssign()

## getCurrentlyProcessingCopy

public org.eclipse.bpel.model.Copy getCurrentlyProcessingCopy()

## getElementNameFrom

public java.lang.String getElementNameFrom()

## getElementNameTo

public java.lang.String getElementNameTo()

## getFromComboList

public java.util.List getFromComboList()

## getFromPartName

public java.lang.String getFromPartName()

## getFromTypeCopyIndex

public java.lang.Integer getFromTypeCopyIndex(java.lang.Integer copySelectionIndex)

## getFromVarIndex

public java.lang.Integer getFromVarIndex()

## getMarkers

public java.util.List getMarkers()

## getProcessVariables

public java.util.List getProcessVariables()

## getToComboList

public java.util.List getToComboList()

## getToPartName

public java.lang.String getToPartName()

## getToTypeCopyIndex

public java.lang.Integer getToTypeCopyIndex(java.lang.Integer copySelectionIndex)

## getToVarIndex

public java.lang.Integer getToVarIndex()

## setAssignList

public void setAssignList(java.util.List assigns)

## setCopyList

public void setCopyList(java.util.List copyList)

## setCurrentlyProcessingAssign

public void setCurrentlyProcessingAssign(org.eclipse.bpel.model.Assign currentlyProcessingAssign)

## setCurrentlyProcessingCopy

public void setCurrentlyProcessingCopy(int index)

## setCurrentlyProcessingCopy

public void setCurrentlyProcessingCopy(org.eclipse.bpel.model.Copy
currentlyProcessingCopy)

## setFromComboList

public void setFromComboList(java.util.List fromComboList)

## setMarkers

public void setMarkers(java.util.List markers)

## setProcessVariables

public void setProcessVariables(java.util.List processVariables)

## setToComboList

public void setToComboList(java.util.List toComboList)

# Package pl.eiti.bpelcg.updater

## Interface Summary

#### **IUpdater**

Behavior of updater BPEL process elements using elements from analysis result.

pl.eiti.bpelcg.updater

# **Interface IUpdater**

< Methods >

public interface IUpdater

Behavior of updater BPEL process elements using elements from analysis result.

#### **Methods**

#### createNewFrom

public org.eclipse.bpel.model.From createNewFrom()

Creates a new From element - source of value copying in copy instruction from assign BPEL element.

Returns:

instance of From element.

## createNewQuery

public org.eclipse.bpel.model.Query createNewQuery()

Creates a query used to retrieve value of field of complex type variable in BPEL copy instruction.

#### Returns:

instance of Query element.

#### createNewTo

```
public org.eclipse.bpel.model.To createNewTo()
```

Creates a new To element - destination of value copying in copy instruction from assign BPEL element.

#### Returns:

instance of To element.

## update

Updates BPEL process using analysis result elements.

#### Parameters:

BPELprocess - BPEL process in memory. analysis - result of process analyze.

# Package pl.eiti.bpelcg.updater.impl

## **Class Summary**

#### **Updater**

Generator updates all assign activities of given process from analysis result map - if copy elements generated exists for given assign activity.

pl.eiti.bpelcg.updater.impl

# Class Updater

#### All Implemented Interfaces:

**IUpdater** 

```
< Constructors > < Methods >
```

public class **Updater** extends java.lang.Object implements IUpdater

Generator updates all assign activities of given process from analysis result map - if copy elements generated exists for given assign activity.

#### Constructors

# **Updater**

```
public Updater()
```

#### **Methods**

# addCopyElement

Adds all copy elements to copy EList of processed assign activities.

#### Parameters:

```
assignActivity - actual processed activity copyElements - list of copy elements as result of process analysis
```

# areQueriesEqual

Simple check equality of BPEL queries given as parameters.

#### Parameters:

existingQuery - query in existing copy element generatedQuery - query in generated copy element

#### Returns:

boolean information if queries are equal

#### createNewFrom

```
public org.eclipse.bpel.model.From createNewFrom()
```

## createNewQuery

```
public org.eclipse.bpel.model.Query createNewQuery()
```

#### createNewTo

```
public org.eclipse.bpel.model.To createNewTo()
```

#### exists

Check generated copy element given as parameter existing in assign element given as parameter.

#### Parameters:

existingAssign - currently checking existing assign element generatedCopy - currently checking generated copy element to selected assign element

#### Returns:

boolean information if exists

# update

# Package pl.eiti.bpelcg.util

# **Class Summary**

#### **ActivityUtil**

Helper element used in BPELcg plugin project.

#### **Messages**

Plugin messages.

#### **Settings**

Plugin settings.

#### **StringElemUtil**

String utility makes checks and operations on paths strings.

#### pl.eiti.bpelcg.util

# Class ActivityUtil

```
< Fields > < Constructors > < Methods >
```

public class **ActivityUtil** extends java.lang.Object

Helper element used in BPELcg plugin project.

## **Fields**

# **BASIC\_ACTIVITIES**

private static final java.lang.Class[] BASIC\_ACTIVITIES

# **Constructors**

# **ActivityUtil**

```
public ActivityUtil()
```

#### **Methods**

# **isBasicActivity**

```
public static java.lang.Boolean
isBasicActivity(org.eclipse.bpel.model.Activity act)
```

Checks if the activity given as parameter is basic (an opposite is structured activity).

#### Parameters:

act - activity to check.

#### Returns:

bool information if it is basic activity.

## **isFlowActivity**

public static java.lang.Boolean isFlowActivity(org.eclipse.bpel.model.Activity
act)

Checks if activity given as parameter is Flow instruction.

#### Parameters:

act - activity to check.

#### Returns:

bool information if activity is Flow instance.

# isVarChangeActivity

```
public static java.lang.Boolean
isVarChangeActivity(org.eclipse.bpel.model.Activity act)
```

Checks if the activity given as parameter can change value of any variable in the process.

#### Parameters:

act - activity.

#### Returns:

bool information if activity can change variable value.

#### pl.eiti.bpelcg.util

# Class Messages

public class **Messages** extends java.lang.Object

Plugin messages.

#### **Fields**

#### **ASSIGN BUTTON DELETE**

public static final java.lang.String ASSIGN\_BUTTON\_DELETE

## ASSIGN\_BUTTON\_MOVEDOWN

public static final java.lang.String ASSIGN\_BUTTON\_MOVEDOWN

## ASSIGN\_BUTTON\_MOVEUP

public static final java.lang.String ASSIGN\_BUTTON\_MOVEUP

## ASSIGN\_BUTTON\_NEW

public static final java.lang.String ASSIGN\_BUTTON\_NEW

## ASSIGN\_CATEGORY\_ENDPOINTREF

public static final java.lang.String ASSIGN\_CATEGORY\_ENDPOINTREF

## ASSIGN\_CATEGORY\_EXPRESSION

public static final java.lang.String ASSIGN\_CATEGORY\_EXPRESSION

#### **ASSIGN CATEGORY LITERAL**

public static final java.lang.String ASSIGN\_CATEGORY\_LITERAL

## ASSIGN\_CATEGORY\_OPAQUE

public static final java.lang.String ASSIGN\_CATEGORY\_OPAQUE

## ASSIGN\_CATEGORY\_PARTNERROLE

public static final java.lang.String ASSIGN\_CATEGORY\_PARTNERROLE

## ASSIGN\_CATEGORY\_VARPART

public static final java.lang.String ASSIGN\_CATEGORY\_VARPART

# ASSIGN\_CATEGORY\_VARPROPERTY

public static final java.lang.String ASSIGN\_CATEGORY\_VARPROPERTY

#### ASSIGN LABEL ASSIGNBLOCKS

public static final java.lang.String ASSIGN\_LABEL\_ASSIGNBLOCKS

#### **ASSIGN LABEL COPYELEMENTS**

public static final java.lang.String ASSIGN\_LABEL\_COPYELEMENTS

#### **ASSIGN LABEL FROM**

public static final java.lang.String ASSIGN\_LABEL\_FROM

## ASSIGN\_LABEL\_TO

public static final java.lang.String ASSIGN LABEL TO

#### **COPY EXPRESSION LABEL**

public static final java.lang.String COPY\_EXPRESSION\_LABEL

#### DIALOG NO BPEL FILE

public static final java.lang.String DIALOG\_NO\_BPEL\_FILE

## DIALOG\_TITLE\_BAR

## WIZARD\_ASSIGN\_PAGE\_NAME

public static final java.lang.String WIZARD\_ASSIGN\_PAGE\_NAME

## WIZARD ASSIGN PAGE TITLE

public static final java.lang.String WIZARD\_ASSIGN\_PAGE\_TITLE

#### WIZARD\_INFO\_PAGE\_NAME

public static final java.lang.String WIZARD\_INFO\_PAGE\_NAME

## WIZARD\_INFO\_PAGE\_TITLE

public static final java.lang.String WIZARD\_INFO\_PAGE\_TITLE

#### **Constructors**

## **Messages**

public Messages()

#### pl.eiti.bpelcg.util

# **Class Settings**

#### **Direct Known Subclasses:**

Analyzer, DefaultMatcher, WSDLResolver

< Fields > < Constructors >

public class **Settings** extends java.lang.Object

Plugin settings.

#### **Fields**

## **BPEL\_EXTENSION**

public static java.lang.String BPEL\_EXTENSION

## **ELEM\_NAME\_INDEX**

public static java.lang.Integer ELEM\_NAME\_INDEX

## **ELEM\_TYPE\_INDEX**

public static java.lang.Integer ELEM\_TYPE\_INDEX

## **ELE\_IMG\_PATH**

public static java.lang.String ELE\_IMG\_PATH

## **MES\_IMG\_PATH**

public static java.lang.String MES\_IMG\_PATH

# **M\_DELIMITER**

public static java.lang.String M\_DELIMITER

## **M LIMITER**

public static java.lang.String M\_LIMITER

#### PART\_NAME\_INDEX

public static java.lang.Integer PART\_NAME\_INDEX

## PROJECT\_ID

public static java.lang.String PROJECT\_ID

## **QUERY\_BEGIN**

public static java.lang.String QUERY\_BEGIN

# QUERY\_END

public static java.lang.String QUERY\_END

## QUERY\_LANGUAGE

public static java.lang.String QUERY\_LANGUAGE

# VARIABLE\_ICON

public static java.lang.String VARIABLE\_ICON

## VARIABLE\_ICON2

public static java.lang.String VARIABLE\_ICON2

## VAR\_IMG\_PATH

public static java.lang.String VAR\_IMG\_PATH

## **Constructors**

# **Settings**

public Settings()

pl.eiti.bpelcg.util

# Class StringElemUtil

#### < Constructors > < Methods >

public class **StringElemUtil** extends java.lang.Object

String utility makes checks and operations on paths strings.

#### Constructors

# **StringElemUtil**

public StringElemUtil()

#### **Methods**

# getPath

```
public static java.lang.String getPath(java.lang.String filePath)
```

Gets from path given as parameter path part without file name.

#### **Parameters:**

filePath - path to cut off file name from.

#### **Returns:**

path to folder.

#### **isRelative**

```
public static java.lang.Boolean isRelative(java.lang.String path)
```

Checks if path given as parameter is realative.

#### Parameters:

path - path to check.

#### Returns:

bool information if relative.

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