# OL4JSF Documentation

## 2.6.1

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# OL4JSF Documentation: 2.6.1

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# Chapter 1. Quickstart

## 1.1. Configure repositories

The OL4JSF uses a local maven repository to deploy its artifacts. So, you'll need to tell Maven where to find them.

1. Edit <MAVEN_REPOSITORY>/settings.xml

```
<settings xmlns="http://maven.apache.org/SETTINGS/1.0.0"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xsi:schemaLocation="http://maven.apache.org/SETTINGS/1.0.0
   http://maven.apache.org/xsd/settings-1.0.0.xsd">
    <profiles>
        <profile>
            <id>dev</id>
            <repositories>
                <repository>
                    <id>maven2-repository.dev.java.net</id>
                    <name>Java.net Repository for Maven</name>
                    <url>http://download.java.net/maven/2/</url>
                </repository>
                <repository>
                    <id>JBOSS</id>
                    <name>JBoss Repository</name>
                    <url>https://repository.jboss.org/nexus/content/repositories/relea
                </repository>
                <repository>
                    <id>OL4JSF Local Repository</id>
                    <name>OL4JSF</name>
                    <url>https://java.net/svn/ol4jsf~svn/repository/</url>
                </repository>
            </repositories>
        </profile>
    </profiles>
    <activeProfiles>
        <!--make the profile active all the time -->
        <activeProfile>dev</activeProfile>
    </activeProfiles>
</settings>
```

## 1.2. Create a Maven project

Here we use the Netbeans IDE, but you can use any tool that you feel comfortable to work with.

1. New project...

**Figure 1.1.**

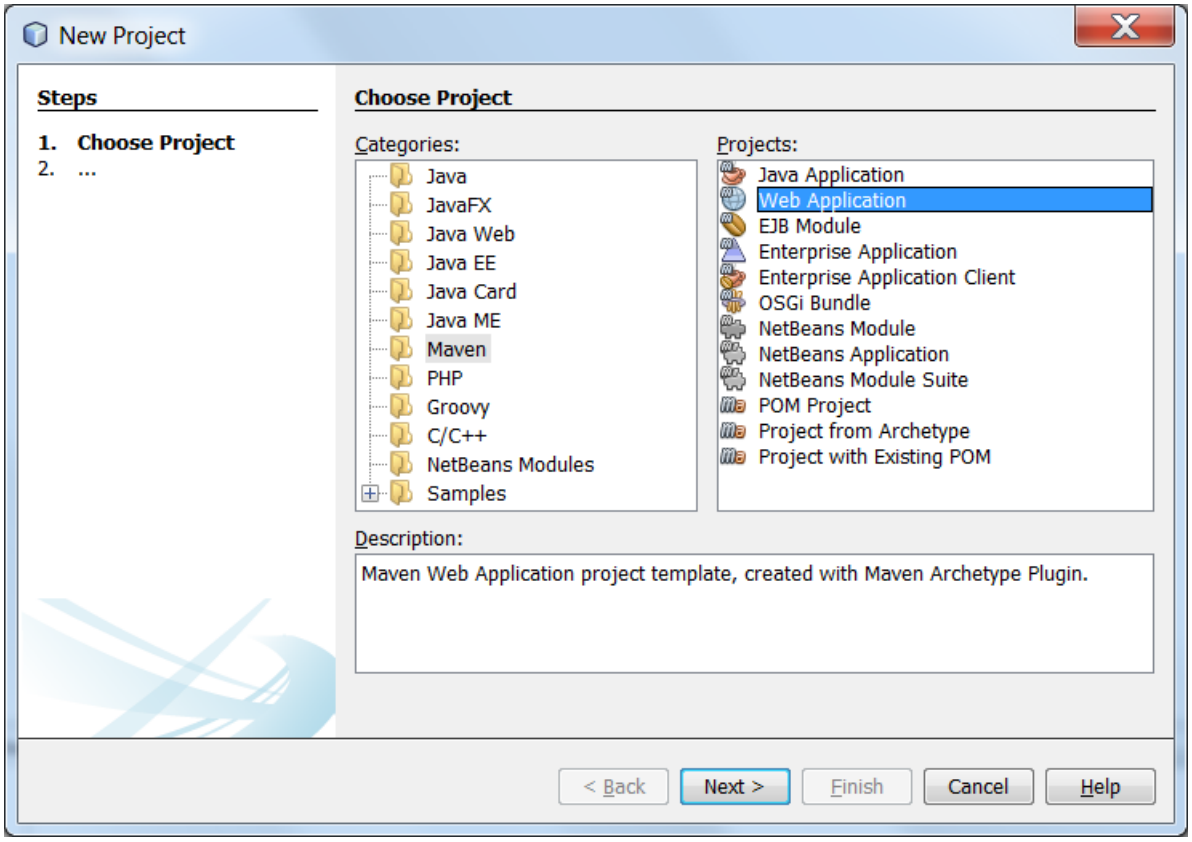

New Project
Steps
1. Choose Project
2. ...
Choose Project
Categories:
Java
JavaFX
Java Web
Java EE
Java Card
Java ME
Maven
PHP
Groovy
C/C++
NetBeans Modules
Samples
Projects:
Java Application
Web Application
EJB Module
Enterprise Application
Enterprise Application Client
OSGi Bundle
NetBeans Module
NetBeans Application
NetBeans Module Suite
POM Project
Project from Archetype
Project with Existing POM
Description:
Maven Web Application project template, created with Maven Archetype Plugin.
< Back
Next >
Finish
Cancel
Help

**Figure 1.2.**

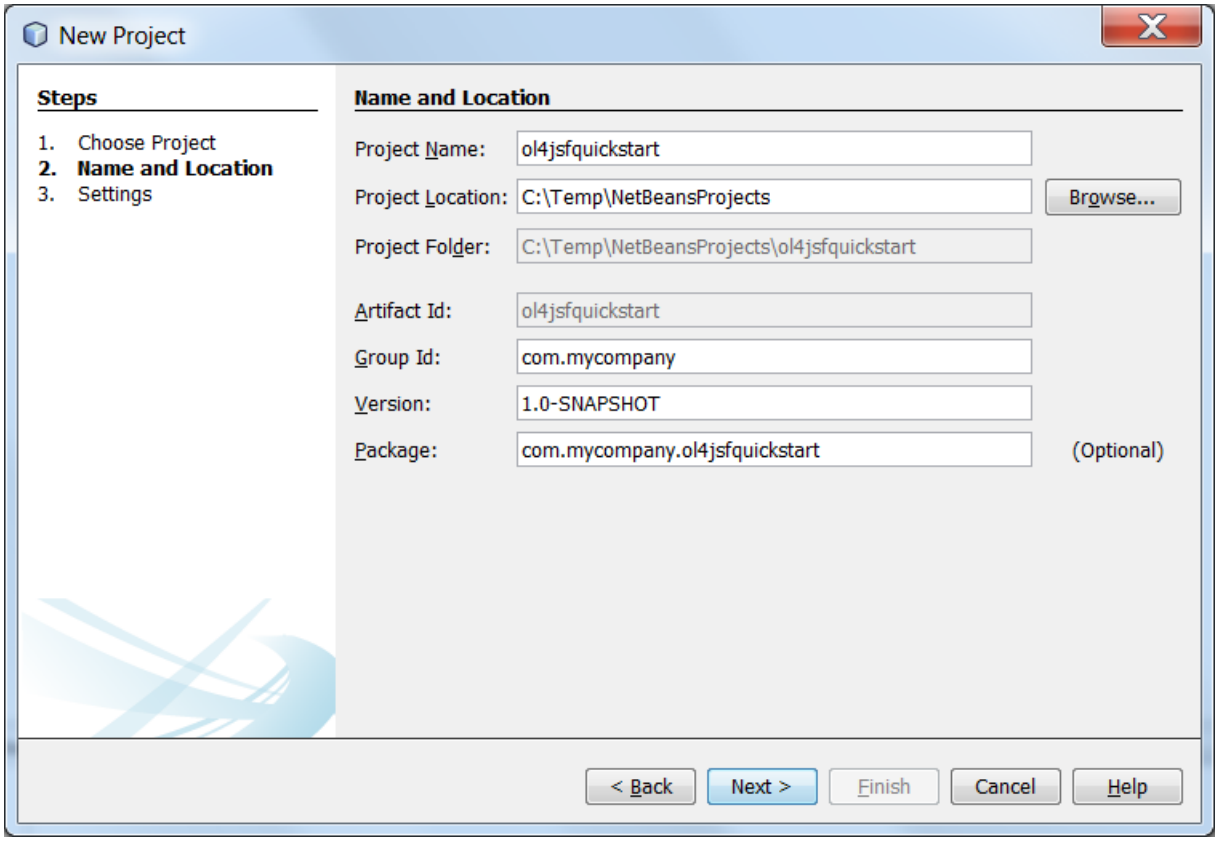
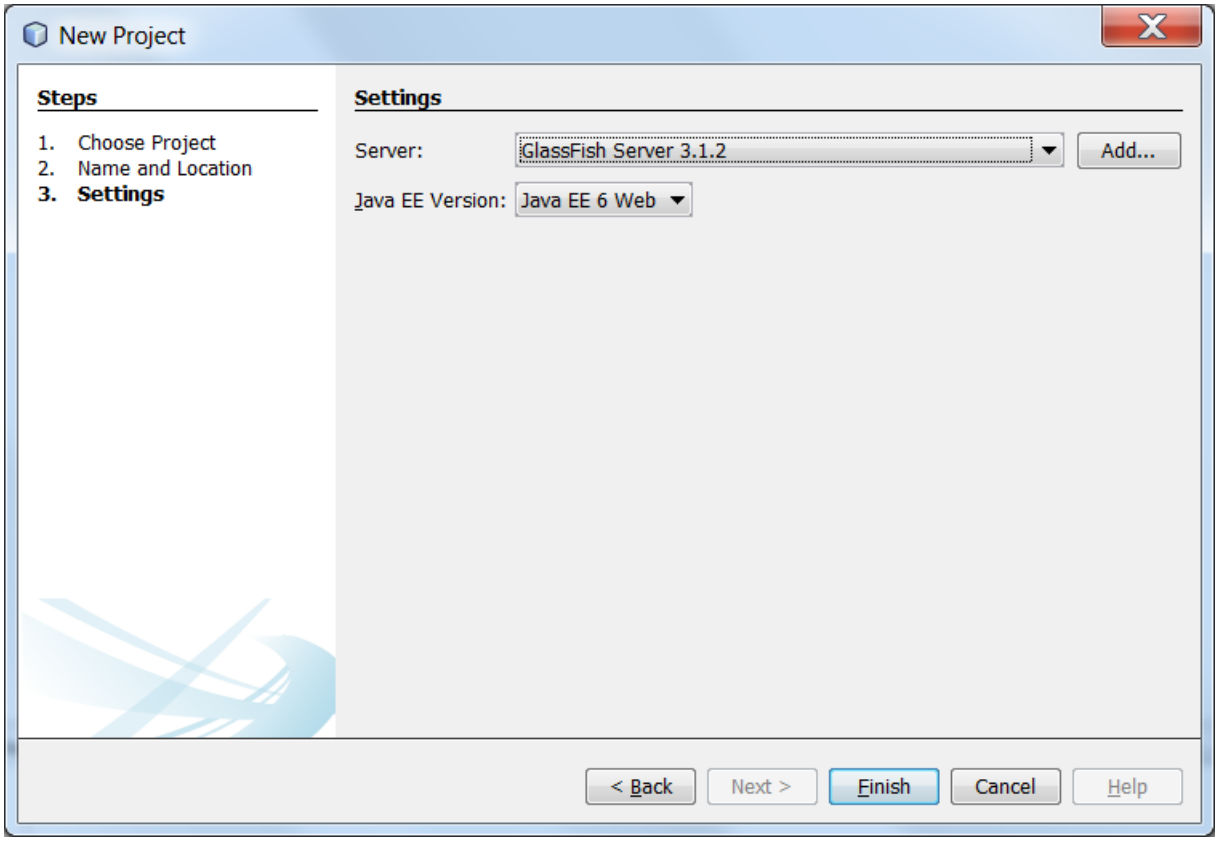

New Project
Steps
1. Choose Project
2. Name and Location
3. Settings
Name and Location
Project Name: ol4jsfquickstart
Project Location: C:\Temp\NetBeansProjects
Browse...
Project Folder: C:\Temp\NetBeansProjects\ol4jsfquickstart
Artifact Id: ol4jsfquickstart
Group Id: com.mycompany
Version: 1.0-SNAPSHOT
Package: com.mycompany.ol4jsfquickstart
(Optional)
< Back
Next >
Finish
Cancel
Help

**Figure 1.3.**




2. Add OL4JSF lib dependency to pom.xml

```
<dependencies>
    ...
    <dependency>
        <groupId>org.ol4jsf</groupId>
        <artifactId>ol4jsf-core</artifactId>
        <version>
            2.6.1
        </version>
        <scope>compile</scope>
    </dependency>
    <!-- Uncomment if you are using JBoss 6 -->
    <!--
    <dependency>
        <groupId>xerces</groupId>
        <artifactId>xercesImpl</artifactId>
        <version>2.4.0</version>
        <scope>provided</scope>
    </dependency>
    -->
</dependencies>
```

3. Create a JSF Page...

**Figure 1.4.**

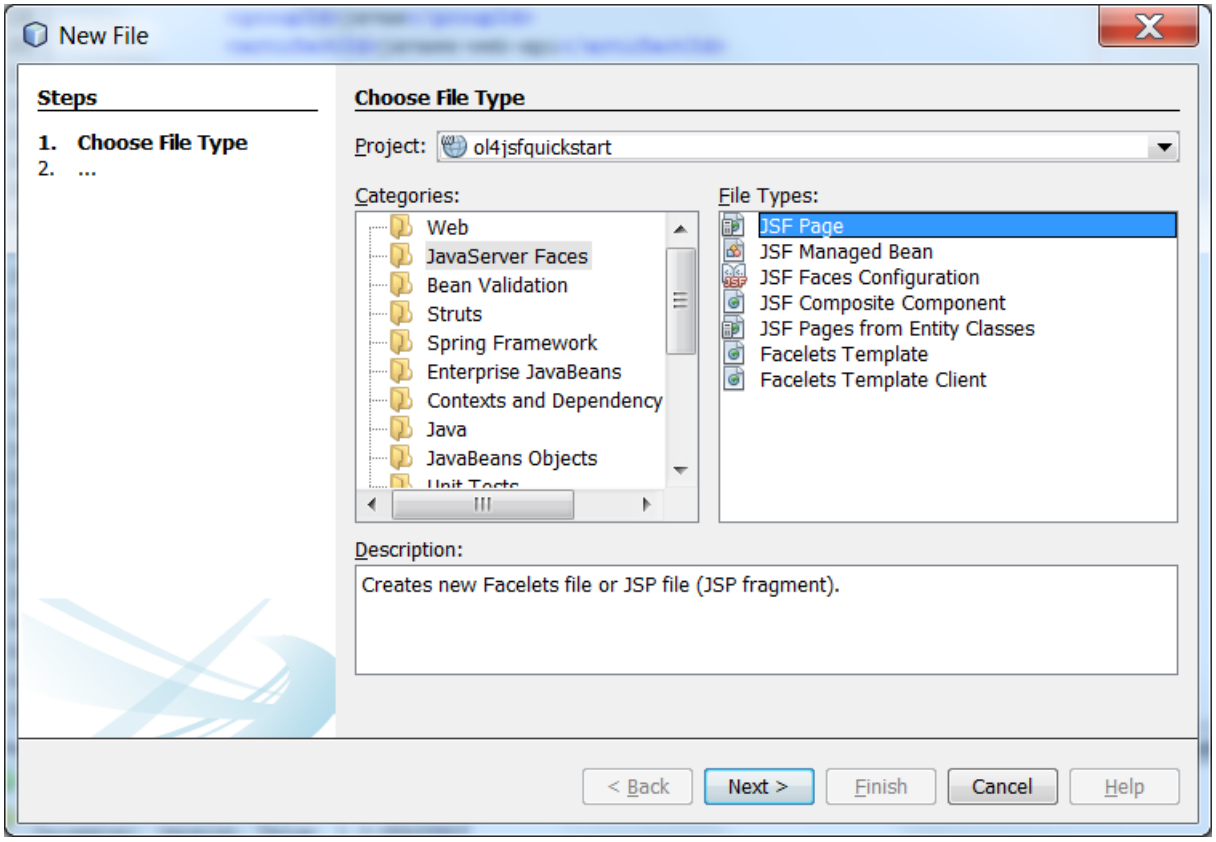
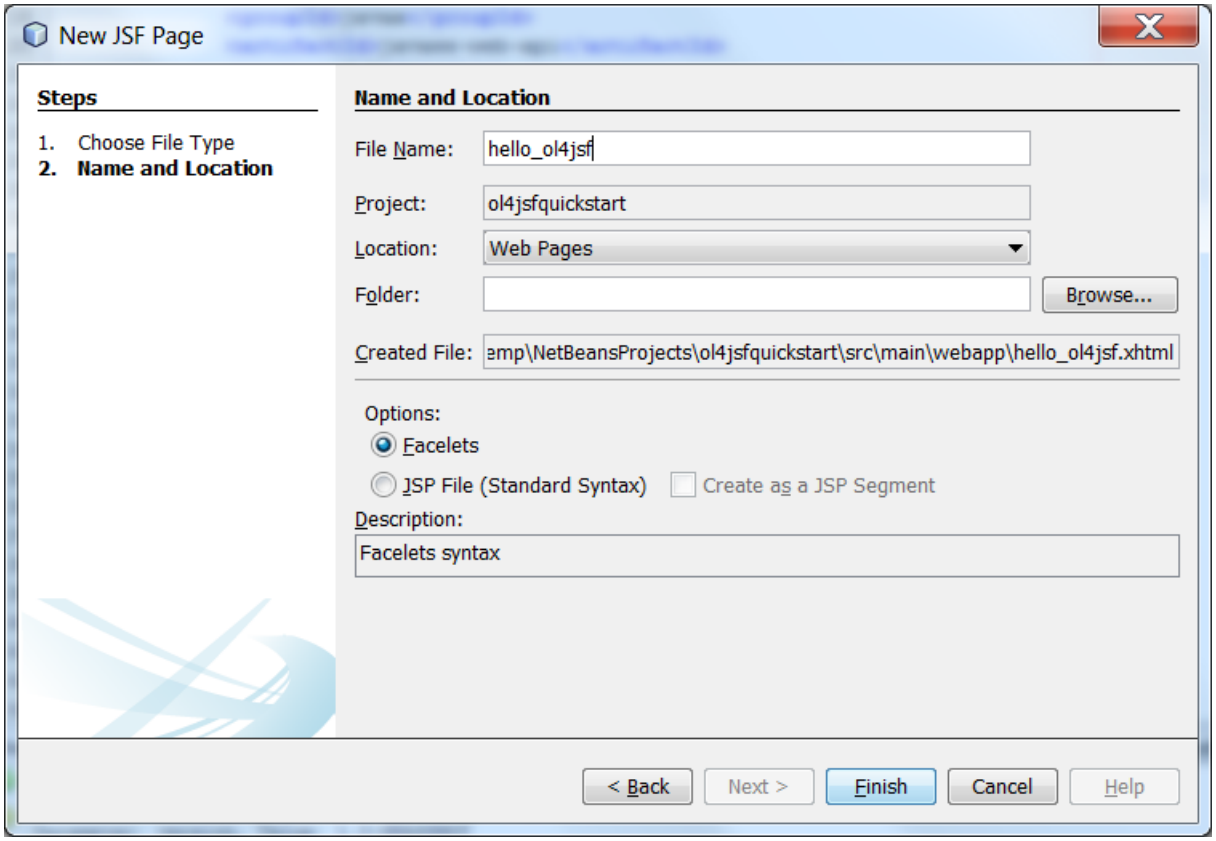

New File
Steps
1. Choose File Type
2. ...
Choose File Type
Project:
ol4jsfquickstart
Categories:
Web
JavaServer Faces
Bean Validation
Struts
Spring Framework
Enterprise JavaBeans
Contexts and Dependency
Java
JavaBeans Objects
File Types:
JSF Page
JSF Managed Bean
JSF Faces Configuration
JSF Composite Component
JSF Pages from Entity Classes
Facelets Template
Facelets Template Client
Description:
Creates new Facelets file or JSP file (JSP fragment).
< Back
Next >
Finish
Cancel
Help

**Figure 1.5.**




4. ... with this code

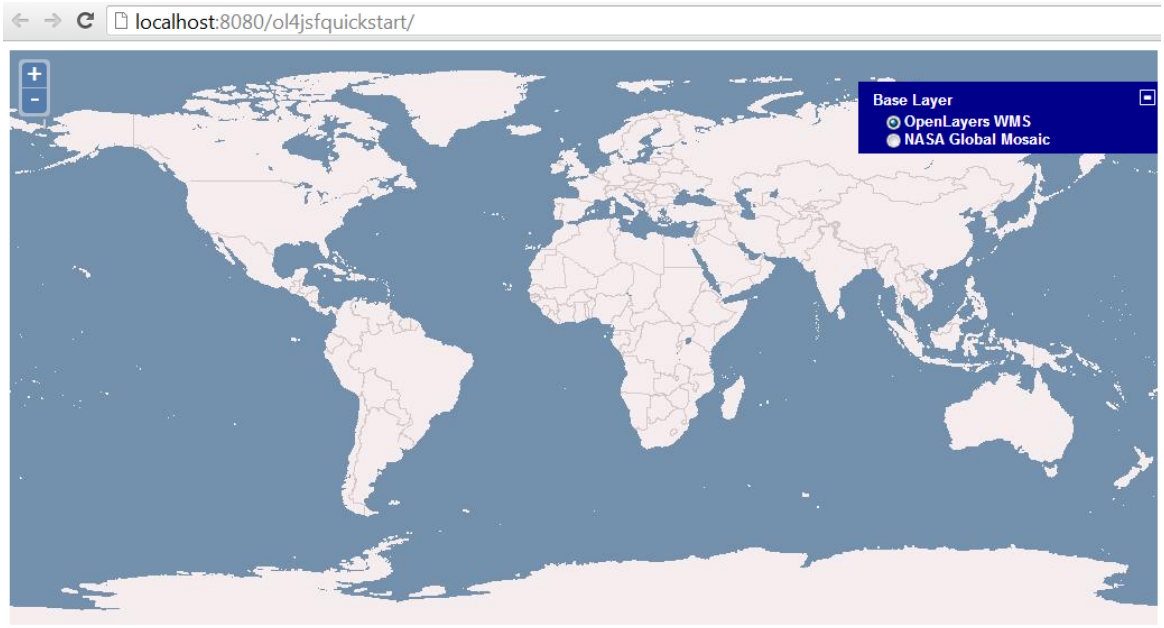
```
<?xml version='1.0' encoding='UTF-8' ?>
<!DOCTYPE
html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"
      xmlns:h="http://java.sun.com/jsf/html"
      xmlns:m="http://www.ol4jsf.org">
    <h:head>
        <title>Hello World OL4JSF!</title>
    </h:head>
    <h:body>
        <m:map width="1024px" height="512px">
            <m:wmsLayer
                name="OpenLayers WMS"
                url="http://labs.metacarta.com/wms/vmap0"
                params="{layers:'basic'}" />
            <m:wmsLayer
                name="NASA Global Mosaic"
                url="http://t1.hypercube.telascience.org/cgi-bin/landsat7"
                params="{layers:'landsat7'}"/>
            <m:layerSwitcherControl />
        </m:map>
    </h:body>
</html>
```

5. Change the web.xml

```
...
<welcome-file-list>
    <welcome-file>faces/hello_ol4jsf.xhtml</welcome-file>
</welcome-file-list>
```

6. Run your project and you'll see your first map

**Figure 1.6.**



# Chapter 2. JSF Components

### Table 2.1. ajaxEvents

| **Type** | org.ol4jsf.AjaxEvents | | |
|---|---|---|---|
| Enable ajax requests based on components events. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/ajaxevents.xhtml https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/java/org/ol4jsf/bean/AjaxBean.java | | | |
| **Name** | **Type** | **Required** | **Description** |
| default | java.lang.String | true | The default event. |
| events | java.lang.String | true | Comma separated events. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.2. arcGIS93RestLayer

| **Type** | org.ol4jsf.ArcGIS93RestLayer | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.layer.ArcGIS93RestLayerRenderer | | |
| Instances of OpenLayers.Layer.ArcGIS93Rest are used to display data from ESRI ArcGIS Server 9.3 (and up?) Mapping Services using the REST API. More detail on the REST API is available at http://sampleserver1.arcgisonline.com/ArcGIS/SDK/REST/index.html ; specifically, the URL provided to this layer should be an export service URL: http://sampleserver1.arcgisonline.com/ArcGIS/SDK/REST/export.html. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/arcgis93rest.xhtml | | | |
| **Name** | **Type** | **Required** | **Description** |
| name | java.lang.String | true | A name for the layer. |
| url | java.lang.String | true | Base url for the ArcGIS server REST service. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | An javascript object with key/value pairs representing the options and option values. Valid Options: format: {String} MIME type of desired image type. layers: {String} Comma-sep- |

| Name | Type | Required | Description |
|---|---|---|---|
| | | | arated list of layers to display. srs: {String} Projection ID.. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.3. arcGISCacheLayer

| Type | org.ol4jsf.ArcGISCacheLayer | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.layer.ArcGISCacheLayerRenderer | | |
| Wrapper for OL OpenLayers.Layer.ArcGISCache. | | | |
| **Name** | **Type** | **Required** | **Description** |
| name | java.lang.String | true | A name for the layer. |
| url | java.lang.String | true | Base url for the ArcGISCache |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | An javascript object with key/value pairs representing the options and option values. Valid Options: format: {String} MIME type of desired image type. layers: {String} Comma-separated list of layers to display. srs: {String} Projection ID.. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.4. attributionControl

| Type | org.ol4jsf.AttributionControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.AttributionControlRenderer | | |
| The attribution control adds attribution from layers to the map display. It uses 'attribution' property of each layer. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/attribution.xhtml | | | |
| **Name** | **Type** | **Required** | **Description** |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |

| Name | Type | Required | Description |
|---|---|---|---|
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

## Table 2.5. bingLayer

| Type | org.ol4jsf.BingLayer |
|---|---|
| Renderer | org.ol4jsf.component.layer.BingLayerRenderer |
| Bing layer using direct tile access as provided by Bing Maps REST Services. See http://msdn.microsoft.com/en-us/library/ff701713.aspx for more information. Note: Terms of Service compliant use requires the map to be configured with an OpenLayers.Control.Attribution control and the attribution placed on or near the map. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/bing.xhtml | |

| Name | Type | Required | Description |
|---|---|---|---|
| key | java.lang.String | true | Bing Maps API key for your application. Get one at http://bingmapsportal.com/. |
| name | java.lang.String | true | A name for the layer. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | An optional javascript object whose properties will be set on the layer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |
| type | java.lang.String | false | The layer identifier. Any non-birdseye imageryType from http://msdn.microsoft.com/en-us/library/ff701716.aspx can be used. Default is "Road". |

## Table 2.6. control

| Type | org.ol4jsf.Control |
|---|---|

| **Renderer** | org.ol4jsf.component.control.ControlRenderer |
|---|---|

Controls affect the display or behavior of the map. They allow everything from panning and zooming to displaying a scale indicator. Controls by default are added to the map they are contained within however it is possible to add a control to an external div by passing the div in the options parameter.

| **Name** | **Type** | **Required** | **Description** |
|---|---|---|---|
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

## Table 2.7. deleteFeatureControl

| **Type** | org.ol4jsf.DeleteFeatureControl |
|---|---|
| **Renderer** | org.ol4jsf.component.control.DeleteFeatureControlRenderer |

Control to delete a feature on map.

| **Name** | **Type** | **Required** | **Description** |
|---|---|---|---|
| layer | java.lang.String | true | The layer(s) this control will delete features from. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

## Table 2.8. dragFeatureControl

| **Type** | org.ol4jsf.DragFeatureControl |
|---|---|
| **Renderer** | org.ol4jsf.component.control.DragFeatureControlRenderer |

| The DragFeature control moves a feature with a drag of the mouse. | | | |
|---|---|---|---|
| **Name** | **Type** | **Required** | **Description** |
| layer | java.lang.String | true | The layer(s) this control will Drag features from. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

## Table 2.9. drawFeatureControl

| **Type** | org.ol4jsf.DrawFeatureControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.DrawFeatureControlRenderer | | |
| The DrawFeature control draws point, line or polygon features on a vector layer when active. | | | |
| **Name** | **Type** | **Required** | **Description** |
| handler | java.lang.String | true | Handler {OpenLayers.Handler}. |
| layer | java.lang.String | true | Layer name {OpenLayers.Layer.Vector}. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

## Table 2.10. editingToolbarControl

| **Type** | org.ol4jsf.EditingToolbarControl |
|---|---|
| **Renderer** | org.ol4jsf.component.control.EditingToolbarControlRenderer |

| The EditingToolbar is a panel of 4 controls to draw polygons, lines, points, or to navigate the map by panning. By default it appears in the upper right corner of the map. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/editingtoolbar.xhtml | | | |
|---|---|---|---|
| **Name** | **Type** | **Required** | **Description** |
| layer | java.lang.String | true | Layer name {OpenLayers.Layer.Vector}. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

## Table 2.11. geometryConverter

| **Converter ID** | org.ol4jsf.GeometryConverter | | |
|---|---|---|---|
| Convert between String and Geometry objects. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/converter.xhtml | | | |
| **Name** | **Type** | **Required** | **Description** |
| srid | java.lang.Integer | false | SRID. Default: -1 |

## Table 2.12. geoRSSLayer

| **Type** | org.ol4jsf.GeoRSSLayer | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.layer.GeoRSSLayerRenderer | | |
| Add GeoRSS Point features to your map. | | | |
| **Name** | **Type** | **Required** | **Description** |
| location | java.lang.String | true | Location of the GeoRSS service. |
| name | java.lang.String | true | A name for the layer. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write addi- |

| Name | Type | Required | Description |
|---|---|---|---|
| | | | tional JavaScript code for the map to customize it. |
| options | java.lang.String | false | A javascript hashtable of extra options to tag onto the layer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.13. getFeatureInfo

| Type | org.ol4jsf.GetFeatureInfo | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.root.GetFeatureInfoRenderer | | |
| Execute a GetFeatureInfo and call a user defined js function. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/getfeatureinfo.xhtml | | | |
| **Name** | **Type** | **Required** | **Description** |
| onCompleteJsFunc | java.lang.String | true | On complete javascript function. |
| queryLayers | java.lang.String | true | Layers to obtain feature info. |
| url | java.lang.String | true | URL service to load feature information. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| featurecount | java.lang.String | false | Maximum of features to receive. |
| format | java.lang.String | false | Format of the information response. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| onFailureJsFunc | java.lang.String | false | On failure javascript function. |
| onLoadingJsFunc | java.lang.String | false | Pre loading javascript function. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |
| srs | java.lang.String | false | SRID (default is projection of the map). |

### Table 2.14. gmlLayer

| Type | org.ol4jsf.GMLLayer | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.layer.GMLLayerRenderer | | |
| Create a layer using the GML format. | | | |
| **Name** | **Type** | **Required** | **Description** |
| name | java.lang.String | true | A name for the layer. |
| url | java.lang.String | true | URL of a GML file. |

| Name | Type | Required | Description |
|---|---|---|---|
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options to tag onto the layer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

## Table 2.15. googleLayer

| | |
|---|---|
| **Type** | org.ol4jsf.GoogleLayer |
| **Renderer** | org.ol4jsf.component.layer.GoogleLayerRenderer |

Provides a wrapper for Google's Maps API Normally the Terms of Use for this API do not allow wrapping, but Google have provided written consent to OpenLayers for this - see email in http://os-geo-org.1560.n6.nabble.com/Google-Maps-API-Terms-of-Use-changes-tp4910013p4911981.html Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/google.xhtml

| Name | Type | Required | Description |
|---|---|---|---|
| name | java.lang.String | true | A name for the layer. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | An optional javascript object whose properties will be set on the layer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

## Table 2.16. icon

| | |
|---|---|
| **Type** | org.ol4jsf.Icon |
| **Renderer** | org.ol4jsf.component.root.IconRenderer |

| The icon represents a graphical icon on the screen. Typically used in conjunction with a OpenLayers.Marker to represent markers on a screen. | | | |
|---|---|---|---|
| **Name** | **Type** | **Required** | **Description** |
| sizeH | java.lang.Integer | true | Height of the image. |
| sizeW | java.lang.Integer | true | Width of the image. |
| url | java.lang.String | true | URL of the image. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| calculateOffset | java.lang.String | false | JS function to calculate offset. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| offsetX | java.lang.Double | false | Default: - (sizeW / 2). |
| offsetY | java.lang.Double | false | Default: - sizeH. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

## Table 2.17. inputVectorLayer

| **Type** | org.ol4jsf.InputVectorLayer |
|---|---|
| **Renderer** | org.ol4jsf.component.layer.InputVectorLayerRenderer |

| Input component to features. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/input_vector.xhtml https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/java/org/ol4jsf/bean/VectorBean.java | | | |
|---|---|---|---|
| **Name** | **Type** | **Required** | **Description** |
| name | java.lang.String | true | A name for the layer. |
| autoCenter | java.lang.Boolean | false | Automatically center the map based on the bound of features. |
| converterMessage | java.lang.String | false | Message to display when conversion fails. |
| domListener | java.lang.String | false | DOM ID element to receive the feature (WKT) if property dropFeaturesBeforeDraw is true. |
| dropFeaturesBeforeDraw | java.lang.Boolean | false | Indicates whether existing features must be deleted before adding the new. |
| immediate | java.lang.Boolean | false | When set true, process validations logic is executed at apply request values phase for this component. Default is false. |

| Name | Type | Required | Description |
|---|---|---|---|
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | An optional javascript object whose properties will be set on the layer. |
| required | java.lang.Boolean | false | Marks component as required. |
| requiredMessage | java.lang.String | false | Message to display when required field validation fails. |
| transformationSource | java.lang.String | false | A string identifying the Well Known Identifier for the projection. |
| transformationTarget | java.lang.String | false | A string identifying the Well Known Identifier for the projection. If transformationSource is set, the transformationTarget default is "map.getProjectionObject()". |
| validator | javax.faces.validator.Validator | false | A method expression referring to a method validationg the input. |
| validatorMessage | java.lang.String | false | Message to display when validation fails. |
| value | java.lang.String | false | Well Known Text objects to be draw (WKTFeaturesCollection API). |
| valueChangeListener | javax.faces.event.ValueChangeListener | false | A method binding expression referring to a method for handling a valuchangeevent. |

## Table 2.18. keyboardDefaultsControl

| Type | org.ol4jsf.KeyboardDefaultsControl |
|---|---|
| Renderer | org.ol4jsf.component.control.KeyboardDefaultsControlRenderer |
| The KeyboardDefaults control adds panning and zooming functions, controlled with the keyboard. By default arrow keys pan, +/- keys zoom & Page Up/Page Down/Home/End scroll by three quarters of a page. | |

| Name | Type | Required | Description |
|---|---|---|---|
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |

| Name | Type | Required | Description |
|---|---|---|---|
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.19. layerSwitcherControl

| Type | org.ol4jsf.LayerSwitcherControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.LayerSwitcherControlRenderer | | |
| The LayerSwitcher control displays a table of contents for the map. This allows the user interface to switch between BaseLasyers and to show or hide Overlays. By default the switcher is shown minimized on the right edge of the map, the user may expand it by clicking on the handle. | | | |
| **Name** | **Type** | **Required** | **Description** |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.20. map

| Type | org.ol4jsf.Map | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.map.MapRenderer | | |
| Instances of OpenLayers.Map are interactive maps embedded in a web page. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/example.xhtml | | | |
| **Name** | **Type** | **Required** | **Description** |
| converterMessage | java.lang.String | false | Message to display when conversion fails. |
| debug | java.lang.Boolean | false | This flag determines whether to render the map's script wrapping and indent lines. |
| height | java.lang.String | false | The height of the map. Default value is 256px. |
| immediate | java.lang.Boolean | false | When set true, process validations logic is executed at apply request values phase for this component. Default is false. |

| Name | Type | Required | Description |
|---|---|---|---|
| includeOLScript | java.lang.Boolean | false | This flag determines whether to include the built-in OpenLayers. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | A Optional javascript object with properties to tag onto the map. |
| renderOnWindowLoad | java.lang.Boolean | false | This flag determines whether to render the map on window load. This flag should be set to false if the map is inside a zone that will be updated by Ajax |
| required | java.lang.Boolean | false | Marks component as required. |
| requiredMessage | java.lang.String | false | Message to display when required field validation fails. |
| theme | java.lang.String | false | The theme used by built in OL. Use 'none' to not include any theme. |
| transformationSource | java.lang.String | false | A string identifying the Well Known Identifier for the projection. |
| transformationTarget | java.lang.String | false | A string identifying the Well Known Identifier for the projection. If transformationSource is set, the transformationTarget default is "map.getProjectionObject()". |
| validator | javax.faces.validator.Validator | false | A method expression referring to a method validationg the input. |
| validatorMessage | java.lang.String | false | Message to display when validation fails. |
| valueChangeListener | javax.faces.event.ValueChangeListener | false | A method binding expression referring to a method for handling a valuchangeevent. |
| width | java.lang.String | false | The width of the map. Default value is 512px. |

## Table 2.21. mapServerLayer

| Type | org.ol4jsf.MapServerLayer | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.layer.MapServerLayerRenderer | | |
| Instances of OpenLayers.Layer.MapServer are used to display data from a MapServer CGI instance. | | | |
| **Name** | **Type** | **Required** | **Description** |
| name | java.lang.String | true | A name for the layer. |
| params | java.lang.String | true | A javascript object with key/value pairs representing the GetMap query string parameters and parameter values. |

| Name | Type | Required | Description |
|---|---|---|---|
| url | java.lang.String | true | Base url for the MapServer CGI. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | A javascript hashtable of extra options to tag onto the layer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.22. marker

| Type | org.ol4jsf.Marker |
|---|---|
| Renderer | org.ol4jsf.component.root.MarkerRenderer |
| Wrapper for OpenLayers.Marker. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/markers.xhtml | |

| Name | Type | Required | Description |
|---|---|---|---|
| lat | java.lang.Double | true | Latitude. |
| lon | java.lang.Double | true | Longitude. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| icon | java.lang.String | false | Icon to use in this marker. |
| iconClone | java.lang.Boolean | false | Define if the marker must use a clone of the icon (default: true). |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |
| transformationSource | java.lang.String | false | A string identifying the Well Known Identifier for the projection. |
| transformationTarget | java.lang.String | false | A string identifying the Well Known Identifier for the projection. If |

| Name | Type | Required | Description |
|---|---|---|---|
| | | | transformationSource is set, the transformationTarget default is "map.getProjectionObject()". |

### Table 2.23. markersLayer

| Type | org.ol4jsf.MarkersLayer | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.layer.MarkersLayerRenderer | | |
| Wrapper for OpenLayers.Layers.Markers. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/markers.xhtml | | | |
| **Name** | **Type** | **Required** | **Description** |
| name | java.lang.String | true | A name for the layer. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| icon | java.lang.String | false | Icon reference to share among markers. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options to tag onto the layer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.24. measureControl

| Type | org.ol4jsf.MeasureControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.MeasureControlRenderer | | |
| Allows for drawing of features for measurements. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/measure.xhtml | | | |
| **Name** | **Type** | **Required** | **Description** |
| handler | java.lang.String | true | Handler {OpenLayers.Handler}. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this |

| Name | Type | Required | Description |
|---|---|---|---|
| | | | attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.25. modifyFeatureControl

| Type | org.ol4jsf.ModifyFeatureControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.ModifyFeatureControlRenderer | | |
| Control to modify features. When activated, a click renders the vertices of a feature - these vertices can then be dragged. By default, the delete key will delete the vertex under the mouse. New features are added by dragging 'virtual vertices' between vertices. | | | |
| **Name** | **Type** | **Required** | **Description** |
| layer | java.lang.String | true | The layer(s) this control will modify features from. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.26. mousePositionControl

| Type | org.ol4jsf.MousePositionControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.MousePositionControlRenderer | | |
| The MousePosition control displays geographic coordinates of the mouse pointer, as it is moved about the map. | | | |
| **Name** | **Type** | **Required** | **Description** |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring |

| Name | Type | Required | Description |
|---|---|---|---|
| | | | to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.27. navigationControl

| Type | org.ol4jsf.NavigationControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.NavigationControlRenderer | | |
| The navigation control handles map browsing with mouse events (dragging, double-clicking, and scrolling the wheel). | | | |
| **Name** | **Type** | **Required** | **Description** |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.28. ol4jsfResource

| Type | org.ol4jsf.component.Ol4jsfResource | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.Ol4jsfResourceRenderer | | |
| Used internally by OL4JSF to render css and js resources. | | | |
| **Name** | **Type** | **Required** | **Description** |
| name | java.lang.String | false | Path of the resource to be exluded. |

### Table 2.29. oleToolbarControl

| Type | org.ol4jsf.OleToolbarControl |
|---|---|
| **Renderer** | org.ol4jsf.component.control.OleToolbarControlRenderer |
| Create a toolbar based on http://ole.geops.de/. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/oletoolbar.xhtml | |

| Name | Type | Required | Description |
|---|---|---|---|
| activeControls | java.lang.String | false | Active features in control. Default: ['Navigation','SnappingSettings','Separator','SplitFeature',' |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| editLayer | java.lang.String | false | Vector layer to plot in. Default is ole internal. |
| featureTypes | java.lang.String | false | Features supported. Default: ['polygon', 'path', 'point'] |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.30. osmLayer

| Type | org.ol4jsf.OSMLayer |
|---|---|
| Renderer | org.ol4jsf.component.layer.OSMLayerRenderer |

This layer allows accessing OpenStreetMap tiles. By default the OpenStreetMap hosted tile.openstreetmap.org Mapnik tileset is used. If you wish to use a different layer instead, you need to provide a different URL to the constructor. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/osm.xhtml

| Name | Type | Required | Description |
|---|---|---|---|
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| name | java.lang.String | false | A name for the layer. |
| options | java.lang.String | false | Hashtable of extra options to tag onto the layer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |
| url | java.lang.String | false | URL of a OSM service. |

### Table 2.31. overviewMapControl

| **Type** | org.ol4jsf.OverviewMapControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.OverviewMapControlRenderer | | |
| The OverMap control creates a small overview map, useful to display the extent of a zoomed map and your main map and provide additional navigation options to the User. By default the overview map is drawn in the lower right corner of the main map. | | | |
| **Name** | **Type** | **Required** | **Description** |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| object | java.lang.String | false | Properties of this object will be set on the overview map object. Note, to set options on the map object contained in this control, set mapOptions as one of the options properties. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.32. panelControl

| **Type** | org.ol4jsf.PanelControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.PanelControlRenderer | | |
| The Panel control is a container for other controls. With it toolbars may be composed. | | | |
| **Name** | **Type** | **Required** | **Description** |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | An optional javascript object whose properties will be set on the layer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.33. panZoomBarControl

| **Type** | org.ol4jsf.PanZoomBarControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.PanZoomBarControlRenderer | | |
| The PanZoom is a visible control, composed of a OpenLayers.Control.PanPanel and a OpenLayers.Control.ZoomPanel. By default it is drawn in the upper left corner of the map. | | | |
| **Name** | **Type** | **Required** | **Description** |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.34. permalinkControl

| **Type** | org.ol4jsf.PermalinkControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.PermalinkControlRenderer | | |
| The Permalink control is hyperlink that will return the user to the current map view. By default it is drawn in the lower right corner of the map. The href is updated as the map is zoomed, panned and whilst layers are switched. | | | |
| **Name** | **Type** | **Required** | **Description** |
| base | java.lang.String | false | String. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| element | java.lang.String | false | DOMElement. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.35. registerEvent

| **Type** | org.ol4jsf.RegisterEvent | | |
|---|---|---|---|
| Register events on Openlayers objects. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/events.xhtml | | | |
| **Name** | **Type** | **Required** | **Description** |
| jsFunc | java.lang.String | true | The callback function. |
| type | java.lang.String | true | Name of the event to register. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| obj | java.lang.String | false | The object to bind the context to for the callback. If no object is specified, default is the Events' object property. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.36. scaleLineControl

| **Type** | org.ol4jsf.ScaleLineControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.ScaleLineControlRenderer | | |
| The ScaleLine displays a small line indicator representing the current map scale on the map. By default it is drawn in the lower left corner of the map. | | | |
| **Name** | **Type** | **Required** | **Description** |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.37. script

| **Type** | org.ol4jsf.Script |
|---|---|
| **Renderer** | org.ol4jsf.component.script.ScriptRenderer |
| Add custom scripts on components. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/panel.xhtml | |

| Name | Type | Required | Description |
|---|---|---|---|
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.38. selectFeatureControl

| Type | org.ol4jsf.SelectFeatureControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.SelectFeatureControlRenderer | | |
| The SelectFeature control selects vector features from a given layer on click or hover. | | | |
| **Name** | **Type** | **Required** | **Description** |
| layers | java.lang.String | true | Comma separated vector layers. The layer(s) this control will select features from. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.39. tmsLayer

| Type | org.ol4jsf.TMSLayer | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.layer.TMSLayerRenderer | | |
| Create a layer for accessing tiles from services that conform with the Tile Map Service Specification (http://wiki.osgeo.org/wiki/Tile_Map_Service_Specification). | | | |
| **Name** | **Type** | **Required** | **Description** |
| name | java.lang.String | true | A name for the layer. |
| url | java.lang.String | true | URL of a TML file. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |

| Name | Type | Required | Description |
|---|---|---|---|
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options to tag onto the layer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.40. vectorLayer

| Type | org.ol4jsf.VectorLayer | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.layer.VectorLayerRenderer | | |
| Instances of OpenLayers.Layer.Vector are used to render vector data from a variety of sources. | | | |
| **Name** | **Type** | **Required** | **Description** |
| name | java.lang.String | true | A name for the layer. |
| autoCenter | java.lang.Boolean | false | Automatically center the map based on the bound of features. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| domListener | java.lang.String | false | DOM ID element to receive the feature (WKT) if property dropFeaturesBeforeDraw is true. |
| dropFeaturesBeforeDraw | java.lang.Boolean | false | Indicates whether existing features must be deleted before adding the new. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | An optional javascript object whose properties will be set on the layer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |
| transformationSource | java.lang.String | false | A string identifying the Well Known Identifier for the projection. |

| Name | Type | Required | Description |
|---|---|---|---|
| transformationTarget | java.lang.String | false | A string identifying the Well Known Identifier for the projection. If transformationSource is set, the transformationTarget default is "map.getProjectionObject()". |
| value | java.lang.String | false | Well Known Text objects to be draw (Use WKTFeaturesCollection). |

### Table 2.41. wfsLayer

| Type | org.ol4jsf.WFSLayer | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.layer.WFSLayerRenderer | | |
| Create a layer using the WFS protocol. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/wfsexample.xhtml | | | |
| **Name** | **Type** | **Required** | **Description** |
| name | java.lang.String | true | A name for the layer. |
| params | java.lang.String | true | A javascript object with key/value pairs representing the GetMap query string parameters and parameter values. |
| url | java.lang.String | true | Base url for the WFS. |
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | A javascript hashtable of extra options to tag onto the layer. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.42. wmsGetFeatureInfoControl

| Type | org.ol4jsf.WMSGetFeatureInfoControl | | |
|---|---|---|---|
| **Renderer** | org.ol4jsf.component.control.WMSGetFeatureInfoControlRenderer | | |
| Show a popup using WMSGetFeatureInfo. Ex: https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/wmsgetfeatureinfo.xhtml | | | |
| **Name** | **Type** | **Required** | **Description** |
| url | java.lang.String | true | URL service to load feature information. |

| Name | Type | Required | Description |
|---|---|---|---|
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| closeBox | java.lang.Boolean | false | Inform if popup can be closed |
| contentHTML | java.lang.String | false | HTML to draw the popup |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| layers | java.lang.String | false | Layers name to obtain feature info. |
| popuptype | java.lang.String | false | The type of the popup. |
| queryVisible | java.lang.Boolean | false | Inform if the query is visible. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |
| title | java.lang.String | false | ID of the WMSGetFeatureInfo. |

### Table 2.43. wmsLayer

| Type | org.ol4jsf.WMSLayer |
|---|---|
| Renderer | org.ol4jsf.component.layer.WMSLayerRenderer |
| Instances of OpenLayers.Layer.WMS are used to display data from OGC Web Mapping Services. | |

| Name | Type | Required | Description |
|---|---|---|---|
| name | java.lang.String | true | A name for the layer. |
| params | java.lang.String | true | A javascript object with key/value pairs representing the GetMap query string parameters and parameter values. |
| url | java.lang.String | true | Base url for the WMS. |
| converterMessage | java.lang.String | false | Message to display when conversion fails. |
| immediate | java.lang.Boolean | false | When set true, process validations logic is executed at apply request values phase for this component. Default is false. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | A javascript hashtable of extra options to tag onto the layer. |

| Name | Type | Required | Description |
|---|---|---|---|
| required | java.lang.Boolean | false | Marks component as required. |
| requiredMessage | java.lang.String | false | Message to display when required field validation fails. |
| validator | javax.faces.validator.Validator | false | A method expression referring to a method validationg the input. |
| validatorMessage | java.lang.String | false | Message to display when validation fails. |
| valueChangeListener | javax.faces.event.ValueChangeListener | false | A method binding expression referring to a method for handling a valuchangeevent. |

### Table 2.44. zoomBoxControl

| Type | org.ol4jsf.ZoomBoxControl |
|---|---|
| Renderer | org.ol4jsf.component.control.ZoomBoxControlRenderer |
| The ZoomBox control enables zooming directly to a given extent, by drawing a box on the map. The box is drawn by holding down shift, whilst dragging the mouse. | |

| Name | Type | Required | Description |
|---|---|---|---|
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

### Table 2.45. zoomToMaxExtentControl

| Type | org.ol4jsf.ZoomToMaxExtentControl |
|---|---|
| Renderer | org.ol4jsf.component.control.ZoomToMaxExtentControlRenderer |
| The ZoomToMaxExtent control is a button that zooms out to the maximum extent of the map. It is designed to be used with a OpenLayers.Control.Panel. | |

| Name | Type | Required | Description |
|---|---|---|---|
| binding | javax.faces.component.UIComponent | false | An el expression referring to a server side UIComponent instance in a backing bean. |
| id | java.lang.String | false | Unique identifier of the component in a namingContainer. |

| Name | Type | Required | Description |
|---|---|---|---|
| jsVariable | java.lang.String | false | This flag determines the JavaScript variable you want to use for referring to the map. It should unique. Use this attribute if you want to use write additional JavaScript code for the map to customize it. |
| options | java.lang.String | false | Hashtable of extra options. |
| rendered | java.lang.Boolean | false | Boolean value to specify the rendering of the component, when set to false component will not be rendered. |

# Chapter 3. Using OL4JSFProxy

The OL4JSF provides a proxy to pass and retrieve information from remote domains via an XHR. It's an alternative to ProxyHost [http://trac.osgeo.org/openlayers/wiki/FrequentlyAskedQuestions#ProxyHost] variable provided by OpenLayers.

## 3.1. Configuration file

The OL4JSF Proxy servlet is mapped by a web-fragment in ol4jsf-core- 2.6.1.jar. If your container does not support the Servlet 3.0 specification you must add the following mapping manually.

```
    <servlet>
        <servlet-name>OL4JSFProxy</servlet-name>
        <servlet-class>org.ol4jsf.proxy.servlet.OL4JSFProxy</servlet-class>
        <load-on-startup>0</load-on-startup>
    </servlet>

    <servlet-mapping>
        <servlet-name>OL4JSFProxy</servlet-name>
        <url-pattern>/OL4JSFProxy/*</url-pattern>
    </servlet-mapping>
```

This servlet looks for a file named ol4jsf-proxy.xml under WEB-INF/classes of the web application. The following code represents a valid configuration file.

```
<?xml version="1.0" encoding="UTF-8"?>
<ol4jsf-proxy>
    <use-environment id="test" />
    <environment id="desenv">
        <description>Development Environment.</description>
        <resources>
            <resource name="wfs">
                <url>http://demo.opengeo.org/geoserver/wfs</url>
            </resource>
            <resource name="wms">
                <url>http://demo.opengeo.org/geoserver/wms</url>
            </resource>
        </resources>
    </environment>
    <environment id="test">
        <description>Test Environment.</description>
        <resources>
            <resource name="wfs">
                <url>http://localhost:9080/geoserver/wfs</url>
            </resource>
            <resource name="wms">
                <url>http://localhost:9080/geoserver/wms</url>
            </resource>
        </resources>
    </environment>
</ol4jsf-proxy>
```

### 3.1.1. Authenticated resources

The OL4JSFProxy supports basic authentication to access protected resources. For instance, if your GeoServer provides WMS services only to a certain user, you must set this information in the configuration file.

```
<?xml version="1.0" encoding="UTF-8"?>
<ol4jsf-proxy>
    <use-environment id="test" />
    ...
    <environment id="test">
        <description>Test Environment.</description>
        <resources>
            ...
            <resource name="wms">
                <url>http://localhost:9080/geoserver/wms</url>
                <authentication>
                    <username>admin</username>
                    <password>geoserver</username>
                </authentication>
            </resource>
        </resources>
    </environment>
</ol4jsf-proxy>
```

## 3.2. Accessing resources through the OL4JSFProxy

The OL4JSFProxy expects the pattern:

```
#{facesContext.externalContext.requestContextPath}/OL4JSFProxy/<resource name>
```

Thus, it is very easy to use OL4JSFProxy!

```
<m:map width="512px" height="256px" theme="black">
    <m:wmsLayer
        name="OpenLayers WMS"
        url="http://labs.metacarta.com/wms/vmap0"
        params="{layers:'basic'}" />
    <m:wfsLayer
        name="States"
        params="{
            featureType: 'states',
            featureNS: 'http://www.openplans.org/topp'
        }"
```

```
        url="#{facesContext.externalContext.requestContextPath}/OL4JSFProxy/wfs" />
    <m:layerSwitcherControl />
</m:map>
```

Some benefits of using OL4JSFProxy:

- Use different servers (resources) to different environments;
- Do not expose your servers map directly to Internet;
- No JavaScript security restrictions;
- It's simple.

# Chapter 4. Populating features with WKTFeatureCollection

OL4JSF provides a way to pass features directly to your vector layer (with *<m:vectorLayer>* and *<m:inputVectorLayer>*) without need a map server. Thus, you can create your features in memory or load them from a database using JPA/JDBC.

### Example 4.1. Populating WKTFeatures in a managed bean

```
@ManagedBean
@RequestScoped
public class VectorBean {
    ...
    public String getWkts() {
        WKTFeaturesCollection features = new WKTFeaturesCollection();

        features.addFeature(new FeatureVector("POINT(0 0)"));

        Map<String,String> attr = new HashMap<String,String>();
        attr.put("myattr", "feature's attribute value");

        Map<String,String> style = new HashMap<String,String>();
        style.put("fillColor", "#FF0000");
        features.addFeature(new FeatureVector("POINT(30 30)", attr, style));

        return features.toMap();
    }
    ...
}
```

Now, you can render this features in your XHTML page:

```
<m:map width="512px" height="256px">
    ...
    <m:vectorLayer name="Features" value="#{vectorBean.wkts}" />
    ...
</m:map>
```

You can find a complete example here:

- Demonstrate a vector layer rendering features from a managed bean. [https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/vector_managedbean.xhtml]
- Managed bean source code. [https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/java/org/ol4jsf/bean/VectorBean.java]

# Chapter 5. OL4JSF and Bean Validation

OL4JSF implements a GeometryType validator based on JSR 303 (Bean Validation). So, it's very simple to validate your geometries using input components (e.g *<m:inputVectorLayer>*) in combination with *<m:geometryConverter>*.

```
//--> in your jsf page
<h:messages showDetail="true" showSummary="false" />
<m:map width="512px" height="256px" options="{controls:[]}">
   ...
   <m:inputVectorLayer
       name="Features"
       value="#{beanValidationExample.feature}">
       <m:geometryConverter srid="4326" />
   </m:inputVectorLayer>
   ...
</m:map>
```

```
//--> in your managed bean
@ManagedBean
@RequestScoped
public class BeanValidationExample {

    @GeometryType(srid = 4326, type = Point.class)
    private Geometry feature;

    //getters and setters
}
```

This way, you can have more control about what is sent to your servers, accepting only geometries with valid type and SRID.

You can find a complete example here:

- Demonstrating bean validation with OL4JSF. [https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/webapp/pages/bean_validation.xhtml]
- Managed bean source code. [https://svn.java.net/svn/ol4jsf~svn/examples/trunk/src/main/java/org/ol4jsf/bean/BeanValidationExample.java]

# Chapter 6. Theme Support

It's easy to use, create and share themes with OL4JSF.

## 6.1. Creating a new theme

1. Configure your repository ( Section 1.1, “Configure repositories”).
2. Generate the theme project:

```
mvn archetype:generate
-DarchetypeGroupId=org.ol4jsf.archetype
-DarchetypeArtifactId=ol4jsf-theme
-DarchetypeVersion=1.0
-DgroupId=org.ol4jsf.theme
-DartifactId=green
```

3. Customize CSS, JS and image files;
4. Install the new theme in your local repository:

```
mvn clean install
```

## 6.2. Using the new theme

1. Configure your pom.xml (in the WAR project) or add the JAR theme to your webapp classpath;

```
<dependency>
    <groupId>org.ol4jsf.theme</groupId>
    <artifactId>green</artifactId>
    <version>1.0-SNAPSHOT</version>
 </dependency>
```

2. Configure the desired theme on your map:

```
<m:map width="512px" height="256px" theme="green">
...
</m:map>
```

# Chapter 7. Running the OL4JSF Examples Project

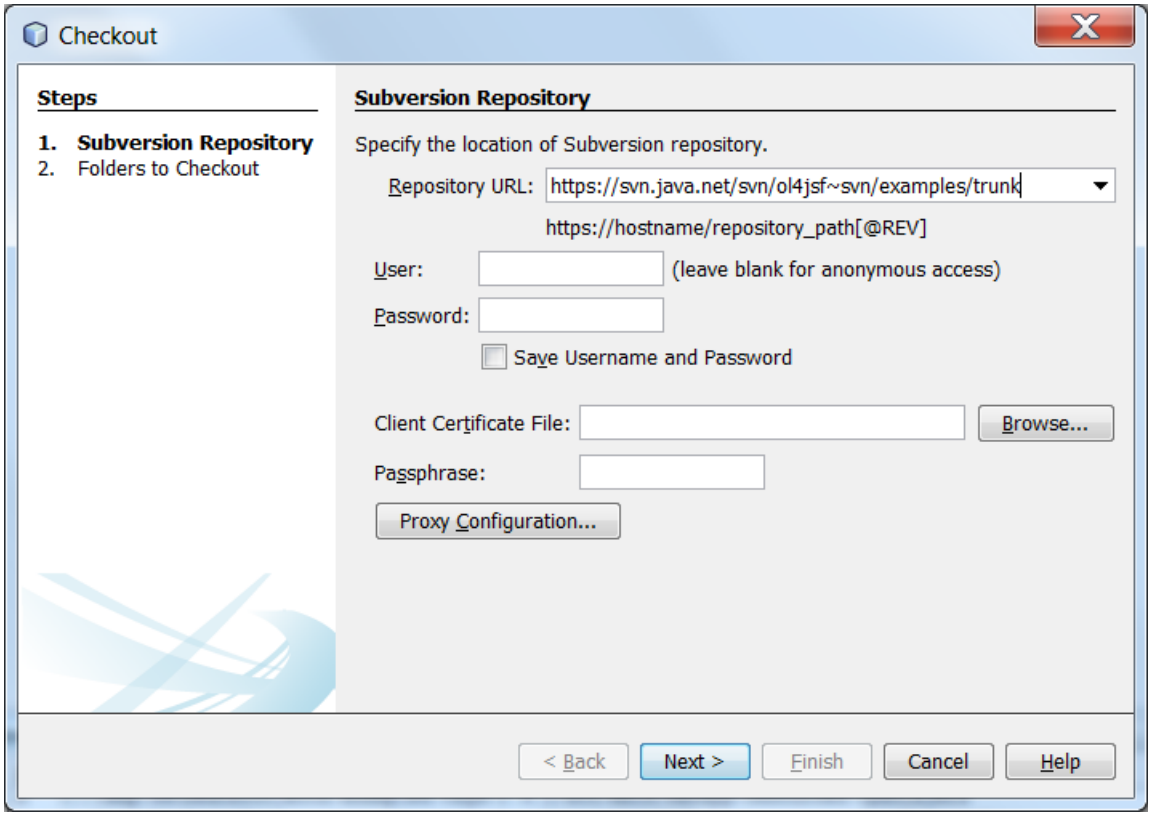
The OL4JSF2 Examples Project contains many examples that can help you to develop your own applications.

## 7.1. Using Netbeans

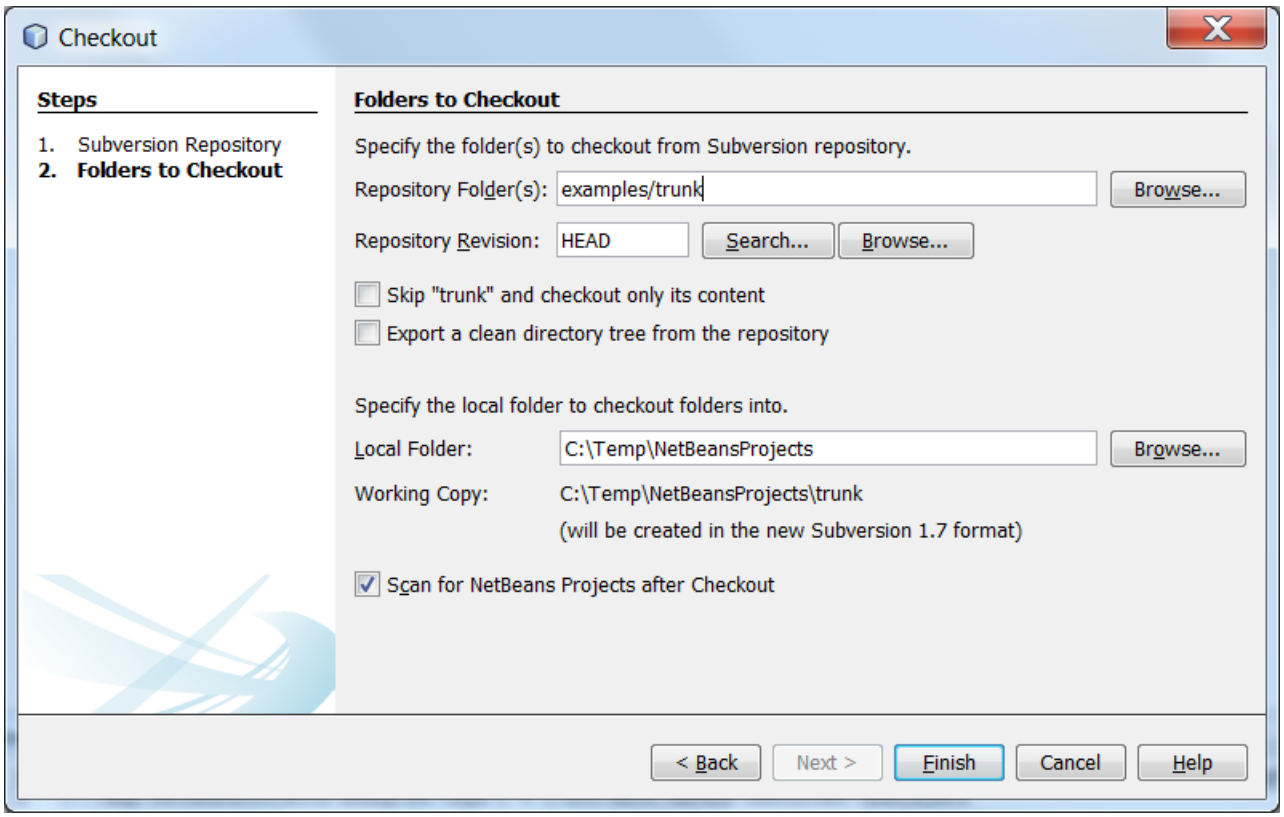
1. Configure your repository ( Section 1.1, “Configure repositories”).

2. Team → Subversion → Checkout...

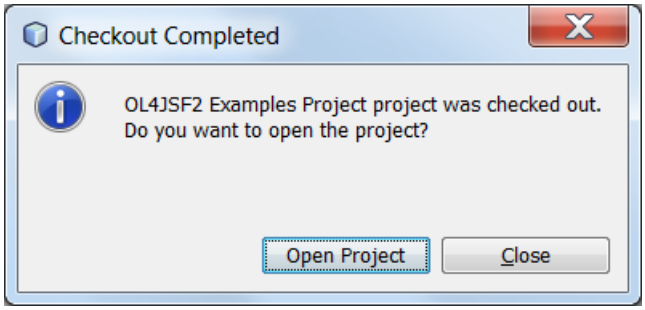
3. Subversion repository



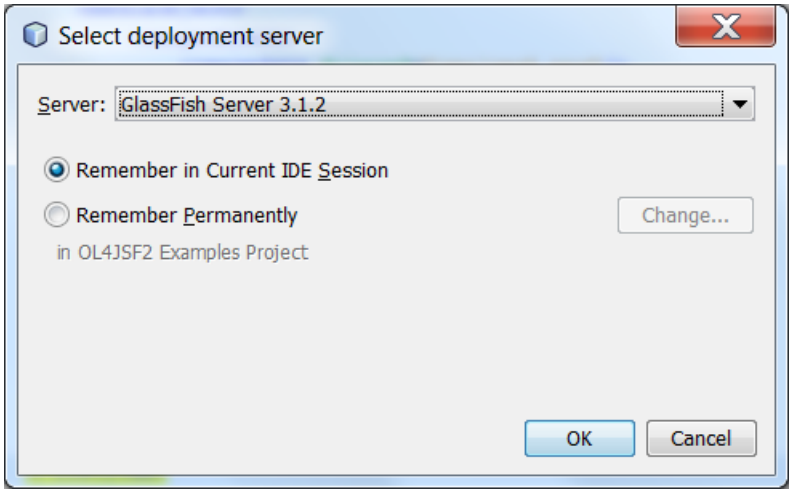

4. Folders to checkout




5. Open the project




6. Run and select the deployment server




7. Enjoy it!