# Alkacon Software GmbH

## Technote

# Alkacon OAMP GeoMap Module

Version:				2.0.0

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# 1   Table of Content

## 2   Abstract

This document describes the installation, configuration and usage of the Alkacon OpenCms Add-On Module Package GeoMap Version 2.0.0. With the OAMP GeoMap Module you can add a full-featured and highly customizable Google map widget to your OpenCms installation without knowledge of HTML.

## 3   General purpose of the Alkacon OAMP GeoMap Module

The module extends a basic OpenCms installation with the capability to create a full-featured and highly customizable Google map widget. It provides the following features:

- A new resource type "Alkacon GeoMap" allows embedding a Google map into your website by Drag & Drop.

- You can select a location by address or coordinates.

- Resize the map or change the zoom level or map type.

- Complete configuration of an Alkacon GeoMap is done in the ADE Editor.

## 4   Installation

**Note**: To use the Alkacon OAMP GeoMap Module version 2.0.0, you need OpenCms version 8.0.1 or later. The module is not compatible with older OpenCms versions.

**Note**: To use the Alkacon OAMP GeoMap Module on OpenCms version 7.5 please download Alkacon OAMP GeoMap Module version 1.0.0, available at alkacon.com.

Step by step installation procedure:

1. Go to the OpenCms Administration view

2. Click "Module Management" and select either "Import Module from Server" if the module was placed in the **WEB-INF/packages/modules/** folder of your OpenCms installation, or select "Import Module with HTTP" to upload the module from your local file system

3. Select the Alkacon OAMP GeoMap Module zip file **com.alkacon.opencms.geomap_2.0.0.zip** to import

4. Edit the OpenCms configuration file **WEB-INF/config/opencms-vfs.xml** and add the following lines to the widget configuration section:

```
...
<widgets>
  ...
  <widget class="com.alkacon.opencms.geomap.CmsGoogleMapWidget"
        alias="MapWidget"/>
</widgets>
...
```

5. Restart your servlet container afterwards

# 5   Configuration

## 5.1  Map key

### 5.1.1   Generate an API Key

Since the Alkacon GeoMap Module uses the Google Maps API, it is necessary that you register your website at Google and generate an API Key for free. For more information and registration go to http://code.google.com/intl/en/apis/maps/signup.html.

Google recommends registering your domain-name. For example: if you register

**`http://example.org`**

the generated API key will be valid for all subfolders of your website and all subdomains.

**`http://example.org /subfolder1/`**

**`http://www.example.org /subfolder2/`**

**`http://subdomain.example.org`**

If you are managing multiple sites with your OpenCms, it is necessary to generate a key per every single domain, no matter if several domains point to single source content or if you manage completely different sites.

For more information, read:

http://code.google.com/intl/en/apis/maps/faq.html

Once you generated your map key log in to the OpenCms workplace. Depending on your setup there are several ways to pass the map key to the Alkacon GeoMap Module.

If you manage a single site in OpenCms (perhaps with a workspace with a different domain-name) you should define the map.key as a module parameter.

### 5.1.2   Map key as a module parameter

1. Switch to the Administration View

2. Click on "Module Management"

3. Select **`com.alkacon.opencms.geomap`** from the list by clicking the link.

4. Click on "Module Parameters"

5. There should be 2 parameters defined as placeholders, "map.key" and "map.key.workplace". Enter your Google map key as value for "map.key". If you have an extra key generated for your workplace server for developing purpose (e.g. **`http://cms.example.org`**) enter this key as a value for "map.key.workplace"

6. Click on "OK"

7. Restart your servlet container

If you manage multiple sites in OpenCms you should assign a different map.key as a property to every site's root folder.

### 5.1.3   Map key as a property

1. In the workplace switch to the Explorer View

2. In the VFS change to the directory where you created your Alkacon GeoMap.

3. Right click your domain's root folder (e.g. `/sites/yourdomain/` in OpenCms) and select properties from the popup-menu.

4. Click on "Advanced"

5. Scroll down to the bottom and click on "Define..." (this step is only done once)

6. Enter "map.key" as a new property and click OK. (this step is only done once)

7. Now enter your Google map key as value for the property "map.key".

8. Click OK.

Though not visible, this property-value is inherited to every file or folder within the root folder, if not declared otherwise (e.g. for a sub-sitemap).

## 5.2   Changing folder and name pattern

### 5.2.1   Module configuration

By default a new Alkacon GeoMap is generated and saved automatically in a dedicated folder. This folder is created automatically in the central `.content` folder of your site (e.g. `/sites/default/.content`). All new generated Alkacon GeoMaps are named and numbered automatically as defined in the Module configuration file (e.g. `/system/modules/com.alkacon.opencms.geomap/.config`)

### 5.2.2   Sitemap configuration

To override this default mechanism, you can edit the Sitemap configuration (e.g. `/sites/default/.content/.config`) and add/modify the Resource type "alkacon-geomap" and select a different folder or name pattern under the tab "Resource Types".

For further information see also:

http://www.opencms-wiki.org/Configuration_of_OpenCms_Sitemap_Properties

# 6   Module usage

After successful installation and configuration of the OAMP GeoMap Module, it is ready to use. New map widgets can be added by Drag & Drop from the ADE toolbar.

## 6.1   Adding a new Alkacon GeoMap to a page

To add a new GeoMap to an existing page, click on the "Add Wizard" symbol in the ADE toolbar.
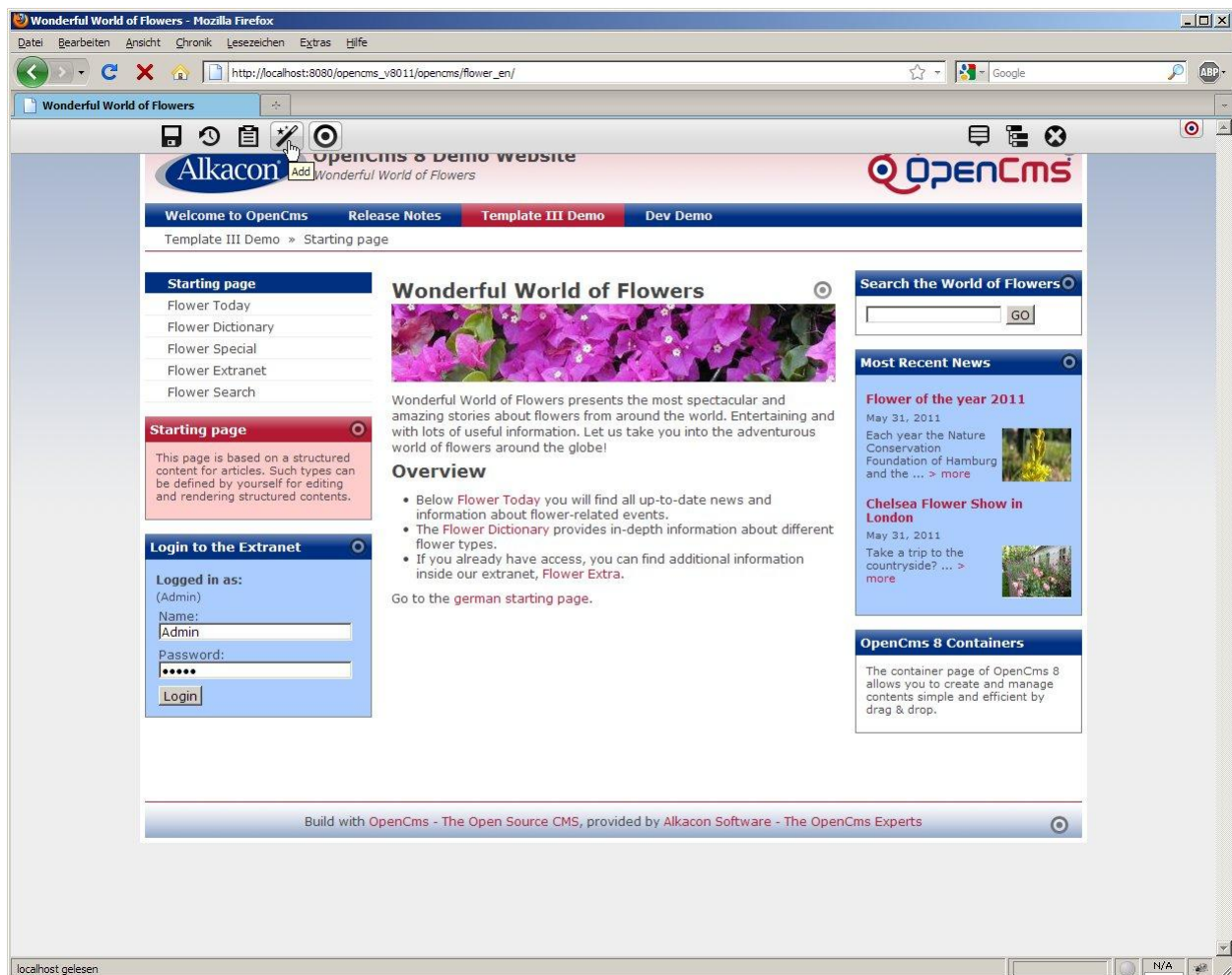


**Figure 1: Open the "Add Wizard" in the ADE toolbar.**

By default the new resource type Alkacon GeoMap is available through the entire site and can be added to pages by Drag & Drop. Just click on the "Move to page" icon and keep the mouse-button pressed. Now you can move the new GeoMap where you need it and release the mouse-button.
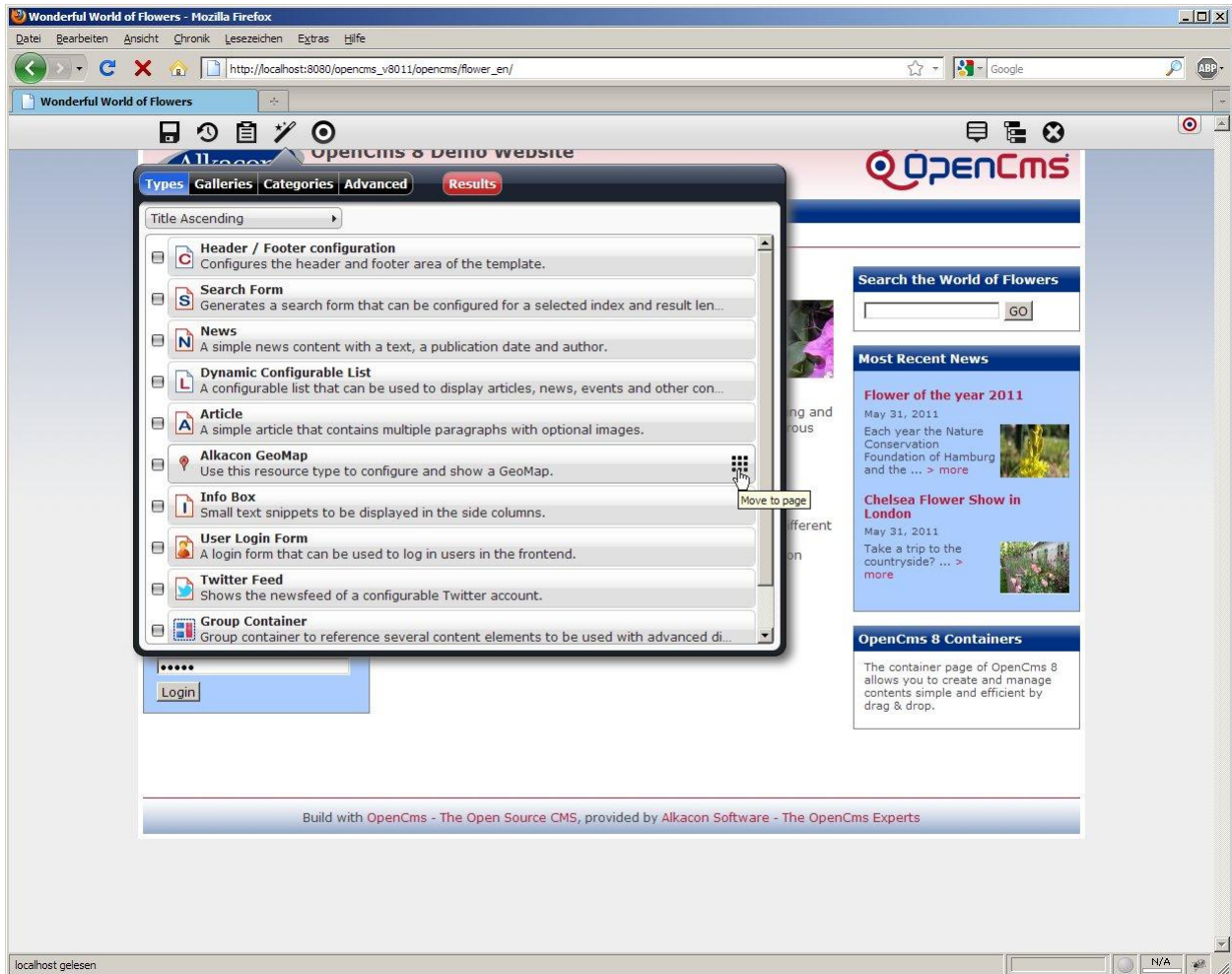
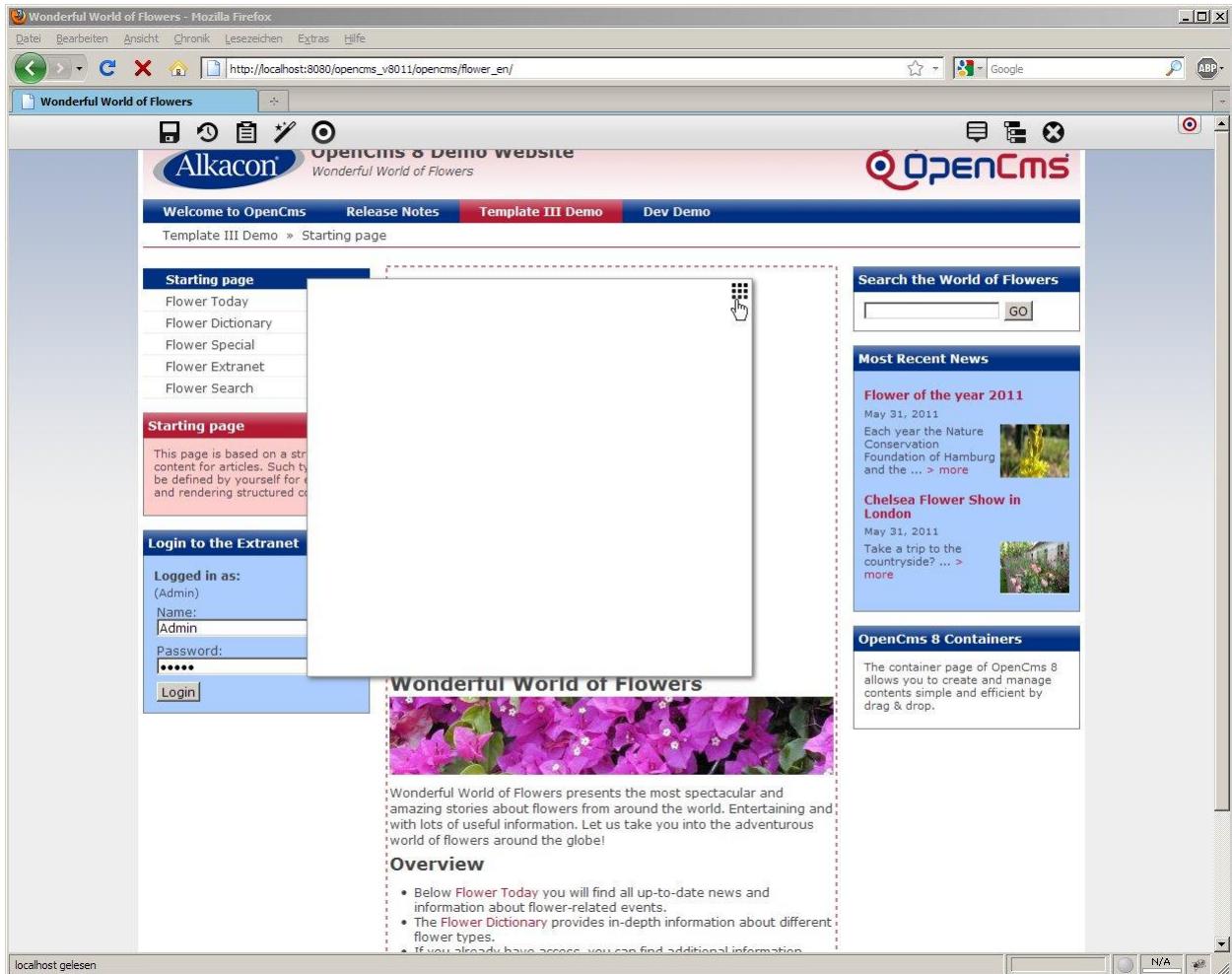**Figure 2: Drag a new Alkacon GeoMap from the "Add Wizard".**

**Figure 3: Dropping the new Alkacon GeoMap to destination container.**

## 6.2  Editing an Alkacon GeoMap

To edit the newly created Alkacon GeoMap click on the ADE icon in the upper right corner of the GeoMap and select "Edit".
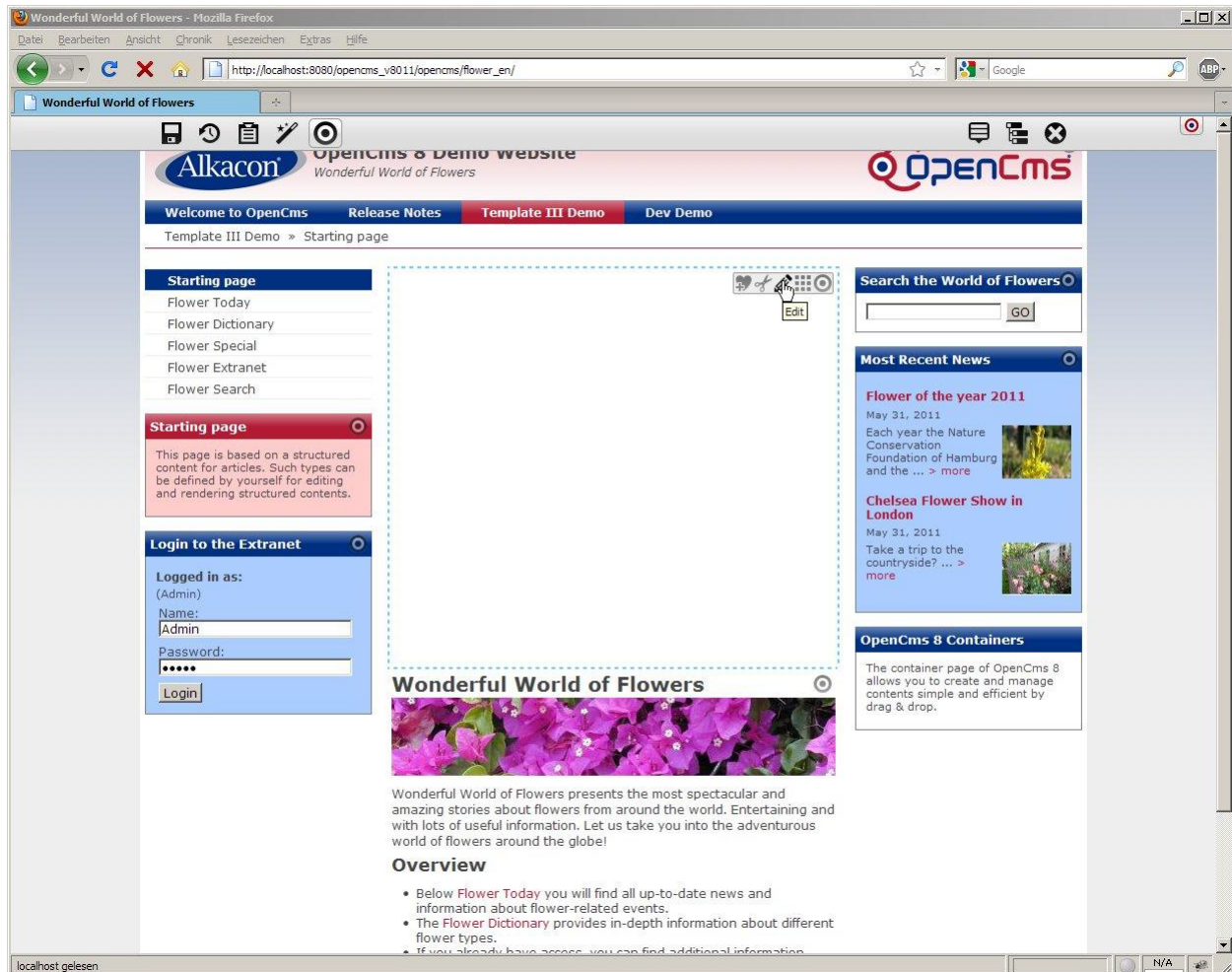


**Figure 4: Open the ADE Editor.**

### 6.2.1  Tab "Settings"

The following fields are available for editing:

- **Headline:** The headline for the page showing the map.

- **Text:** The text is shown with the map.

- **Text alignment:** Determines where the text is shown. The select box offers the following options: "Text on top", "Text on bottom", "Text left" and "Text right".

- **Map size:** The size of the generated map in pixels, the format is "width x height". Percent notation (%) can also be used, e.g. "100%x400". In addition, the select box offers several standard settings.

- **Map type:** The map type that is shown. Options are: "Road map", "Satellite" and "Hybrid", which is similar to "Satellite" with additional labels.

- **Zoom:** The zoom factor of the generated map.

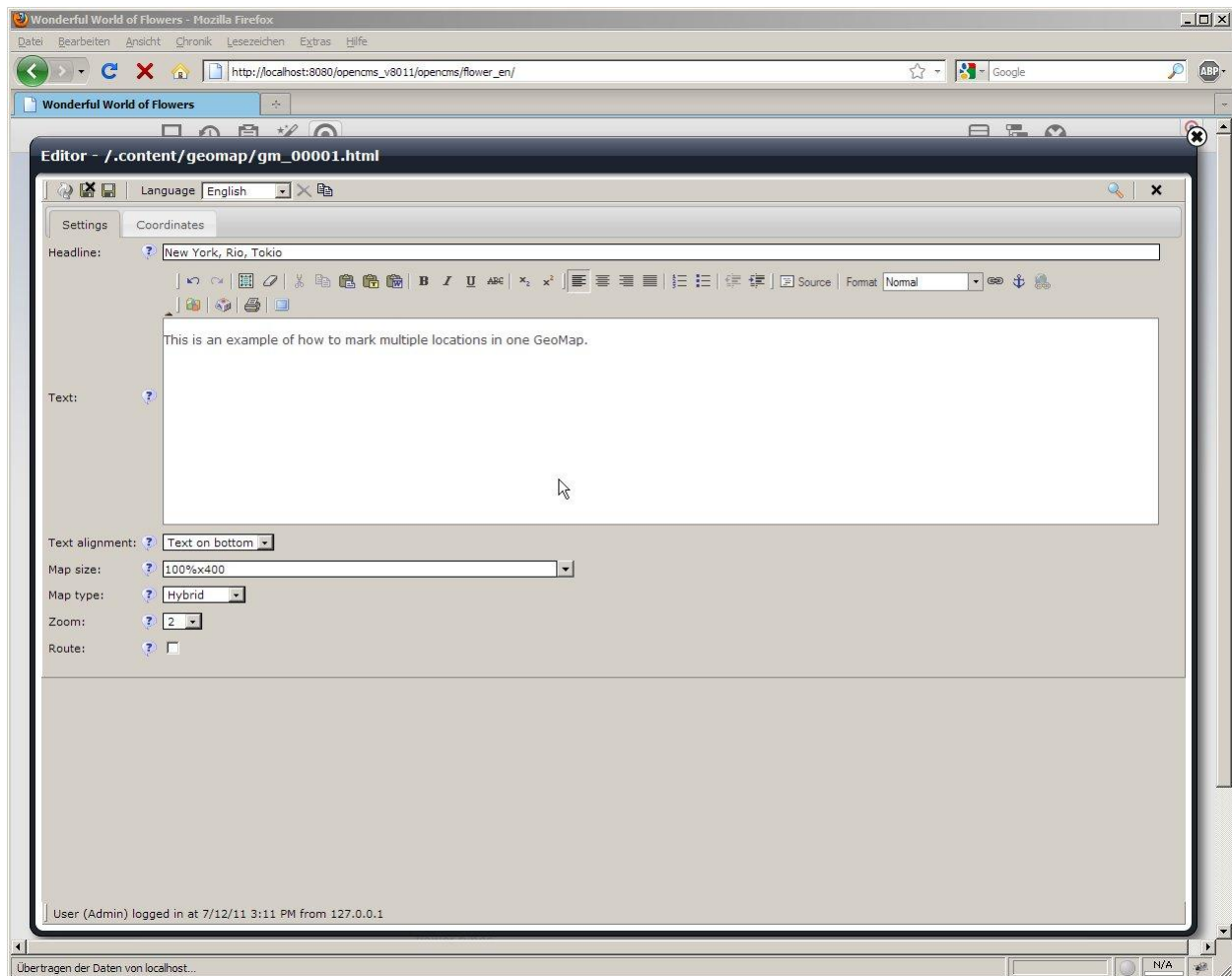- **Route:** If checked, the page will show a route planner to a target.

**Figure 5: Alkacon OAMP GeoMap in ADE Editor, tab "Settings".**

### 6.2.2   Tab "Coordinates"

The following fields are available for editing:

- **KML File:** If a KML file is used, the coordinates entered below will be ignored. It is possible, to select a KML file from OpenCms' virtual file system or to enter the URI of a KML file based on a remote server.

- **Coordinates:** This nested box allows you to mark multiple places in one GeoMap. To enter more than one set of coordinates, use the "add new" button to the right of the nested box.

  - **Caption:** The caption of the coordinates.

  - **Address:** The optional address for the coordinates. If the address should not be calculated by Google, enter here an address to show.

  - **Coordinates:** You can enter an address into the input field. If you don't know the exact address you can enter as many fragments as you know like "street, no., city, state, country". The best approximation will be calculated. If you want to

enter GPS-like coordinates in latitude/longitude, click on the "more"-button right near the address input field.
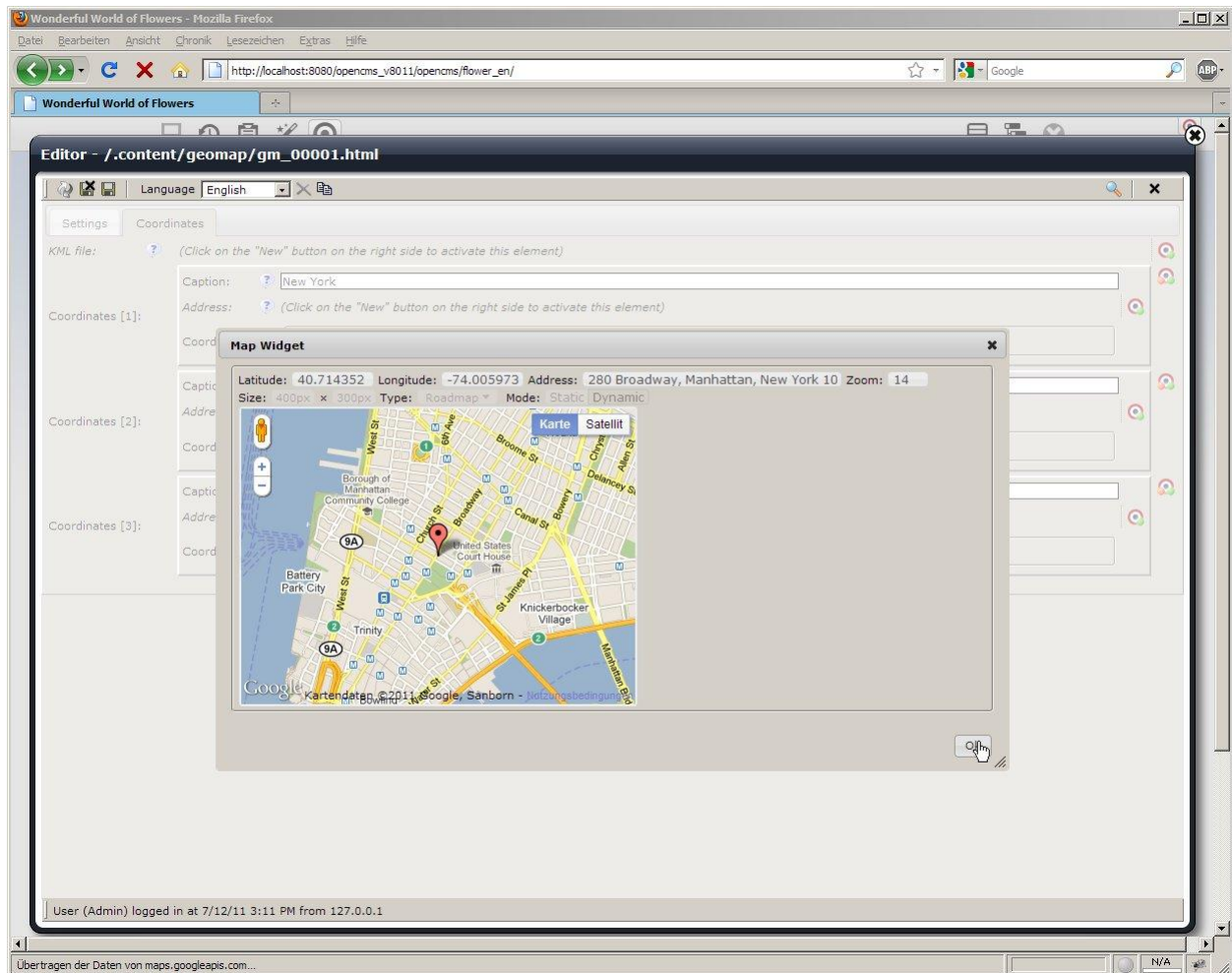


**Figure 6: Alkacon OAMP GeoMap in ADE Editor, tab "Coordinates".**

## 6.3  Adding an existing Alkacon GeoMap to your page

You can also select an existing Alkacon GeoMap from the "Add Wizard" by double-clicking the Resource type Alkacon GeoMap or by checking the box left to it and clicking "Results". From the displayed results, select the GeoMap you need and add it to your page by Drag & Drop.
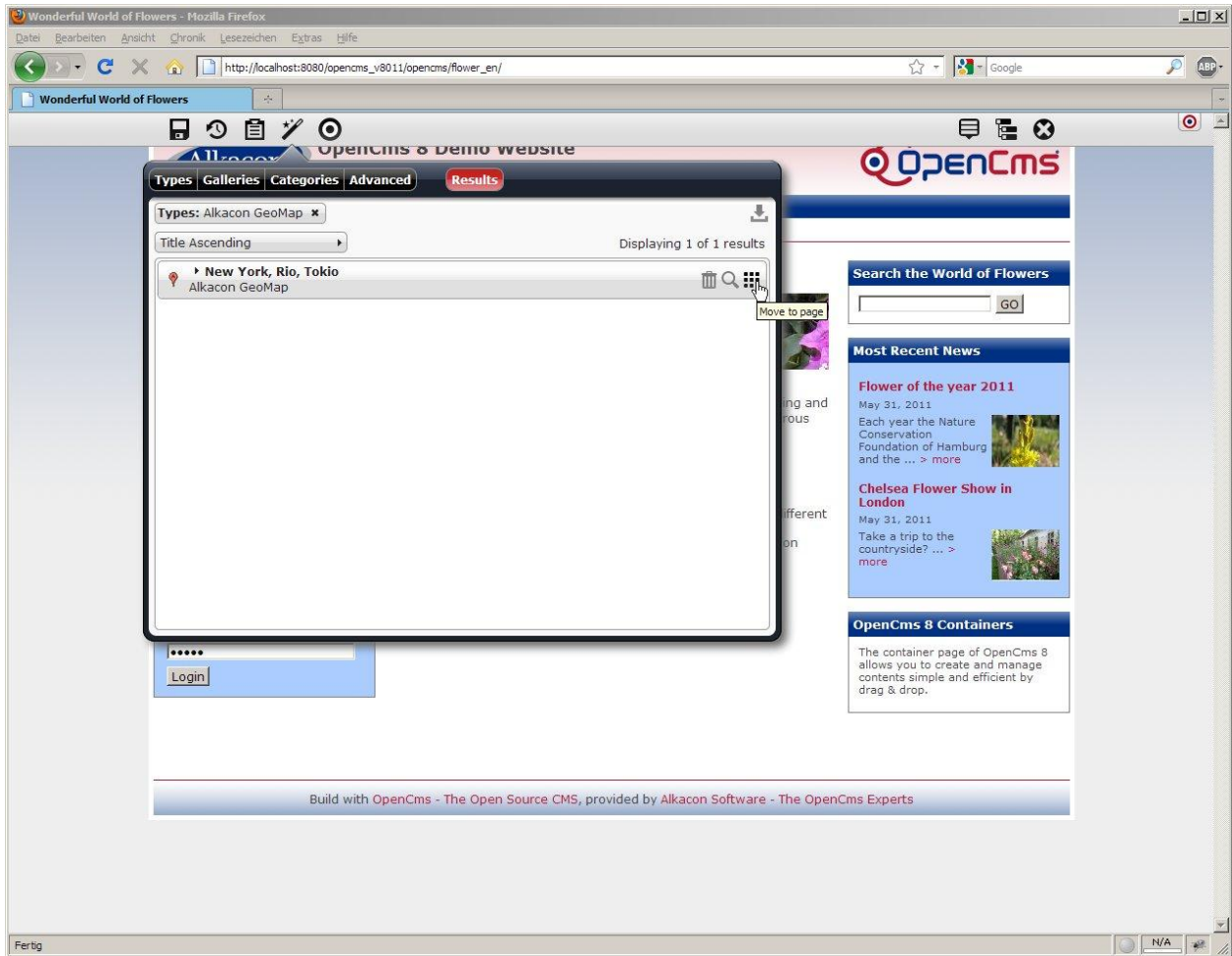
**Figure 7: Drag & Drop of an existing Alkacon GeoMap in ADE.**

# 7 The Frontend View

After saving and reloading the page the GeoMap should seamlessly integrate with your web page.
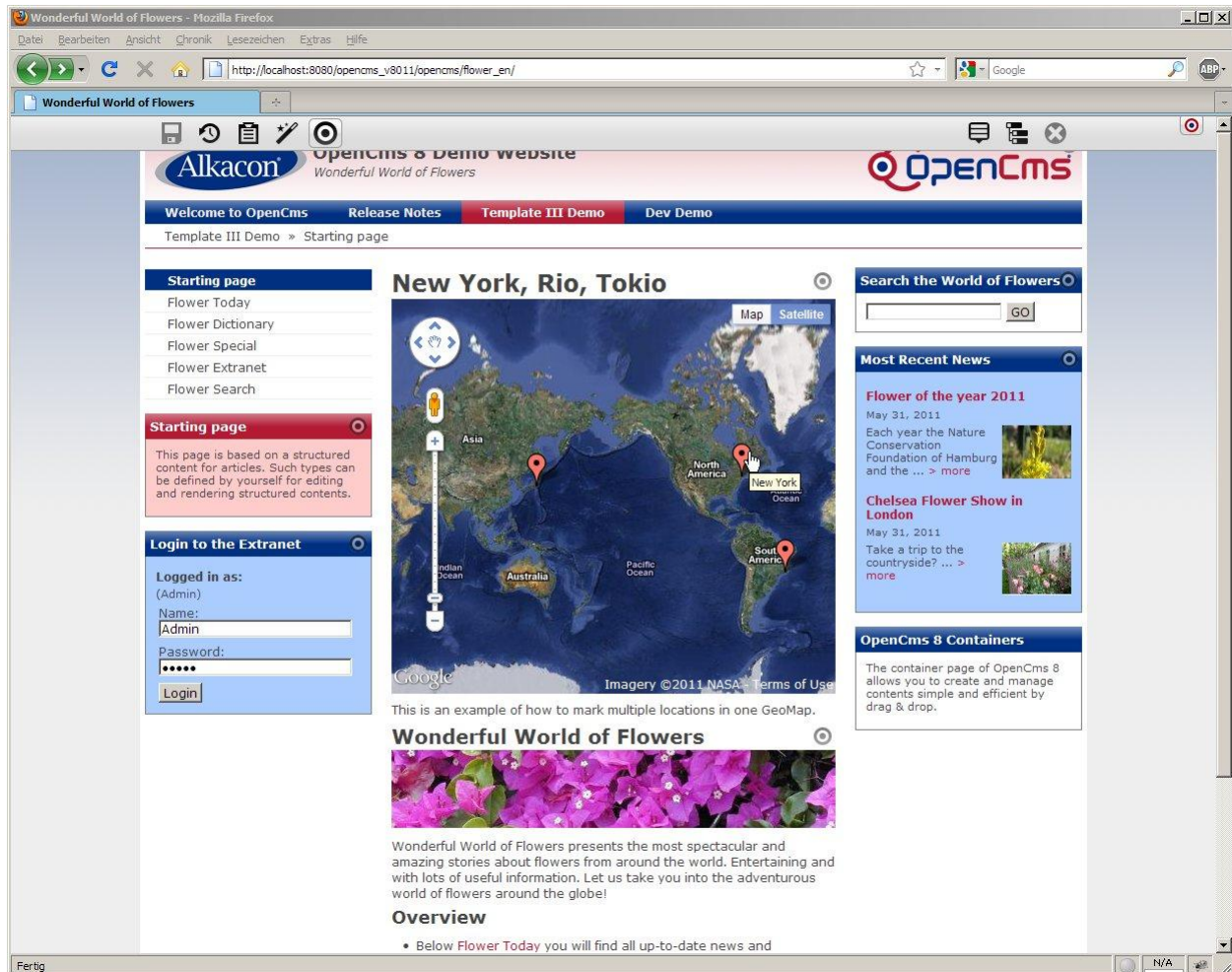


**Figure 8: Demo frontend view, multiple coordinates, map type "Hybrid".**

# 8 Implementation details

The package `com.alkacon.opencms.geomap` contains the implementation of the Alkacon OAMP GeoMap Module. The following classes are used:

The `.config` file: The module configuration of the Alkacon GeoMap. Defines default settings, where all instances of the resource type alkacon-geomap are stored and how they are named and numbered.

The **classes** folder contains the resource bundles used for localization. There are two resource bundles:

- **workplace**: for messages displayed in the workplace, mainly the xml content editor.

- **frontend**: for messages displayed in the frontend.

The **elements** folder is the more interesting with all JSP elements:

- **header.include.html**: The default header include file

- **html-templates.xml**: The default html template file

- **messages.xml**: The default xml messages file

The **lib** folder contains the needed jar file.
The **pages** folder contains the main JSP.

- **map.jsp**: Renders the map detail view

The **resources** folder contains the used style sheets and JS.

- **displaymap.js**: JS to display maps

- **fg.button.css**: CSS for default button settings

- **fg.menu.css**: CSS for default menu settings

- **fg.menu.js**: JS for creating and manipulating custom menus

- **jquery.forms.js**: JS to create element IDs, assigning labels

- **jquery.listenForChange.js**: JS for change listener

- **jquery.mapWidget.js**: JS to create "on return" event handlers

- **jquery.metadata.js**: JS for parsing metadata from elements

- **map.css**: default map CSS

- **spinner_bar.gif**: used by fg.button.css

The **schemas** folder contains the **xsd** files defining the configuration xml.

- **html-templates.xsd**: XSD for html templates

- **map-coord.xsd**: Nested XSD for map coordinates

- **map.xsd**: XSD for maps

- **message-labels.xsd**: Nested XSD for message labels

- **message-modes.xsd**: Nested XSD for message modes

- **message-types.xsd**: Nested XSD for message types

- **messages.xsd**: XSD for messages