Alkacon OAMP Calendar Module

Version 2.0.0

Contents

1 Abstract

This document describes the installation, configuration and usage of the Alkacon OpenCms Add-On Module Package Calendar version 2.0.0. With the calendar module, it is possible to create different calendar views containing time based events on your OpenCms 8 website per drag & drop.

2 General purpose of the Alkacon OAMP Calendar Module

Version 2.0.0 of the OAMP Calendar module extends a basic OpenCms 8 installation with the capability to add and display different calendar based views on time based events with drag & drop.

It provides the following features:

- Different resource types for **Calendar Entry**, **Serial Date Entry** and **Calendar View** can be added to your website by drag & drop.
- Daily, weekly, monthly and yearly overviews can be shown.
- Easy configuration of resource types.
- Shows local holidays like New Year's Day or Christmas.
- Additionally, it is possible to define serial dates appearing more than once in the calendar.

3 Installation

Note: To use the Alkacon OAMP Calendar module version 2.0.0, you need at least OpenCms version 8.0.1.
The module is not compatible with older OpenCms versions.

Note: The Alkacon OAMP Commons module that is shipped together with the Alkacon OAMP Calendar module is needed. It has to be installed before the Calendar module

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 Calendar module zip file `com.alkacon.opencms.v8.calendar_2.0.x.zip to import`
   Note: be sure that you have imported the module `com.alkacon.opencms.commons_1.0.x.zip` first.
4. Check if the jar file `com.alkacon.opencms.v8.calendar.jar` has been deployed in the `WEB-INF/lib/` folder after installation
5. 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.v8.calendar.CmsSerialDateWidget"
    alias="V8SerialDateWidget"/>
  <widget
class="com.alkacon.opencms.v8.calendar.CmsSerialDateSelectWidget"
```

```
    alias="V8SerialDateSelectWidget"/>
</widgets>
...
```

6. Restart your servlet container afterwards

4 Module usage

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

4.1 Resource type Calendar view

4.1.1 Adding a new OAMP Calendar view to a page

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

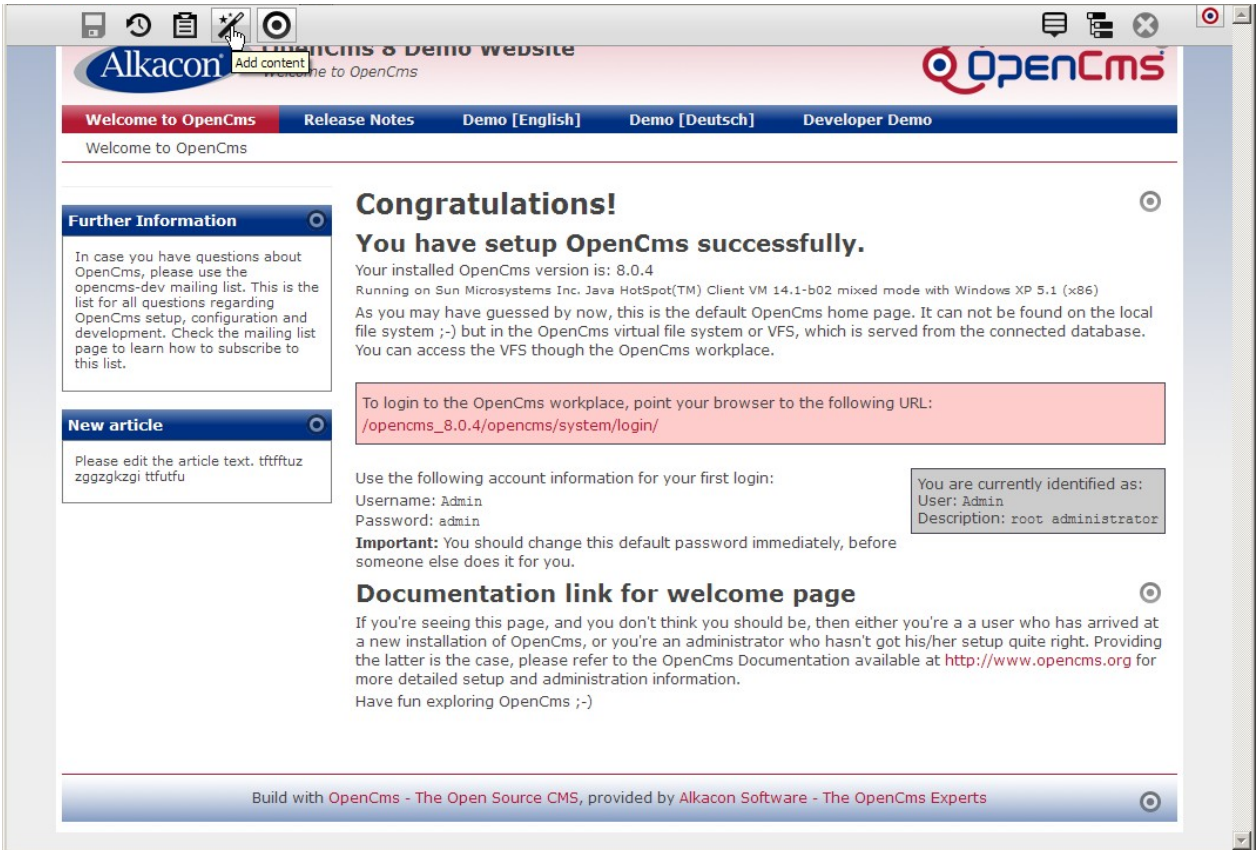

Figure 1: Open the "Add Wizard" in the ADE toolbar.

By default the new resource type **Calendar view** 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 **Calendar view** where you need it and release the mouse-button.

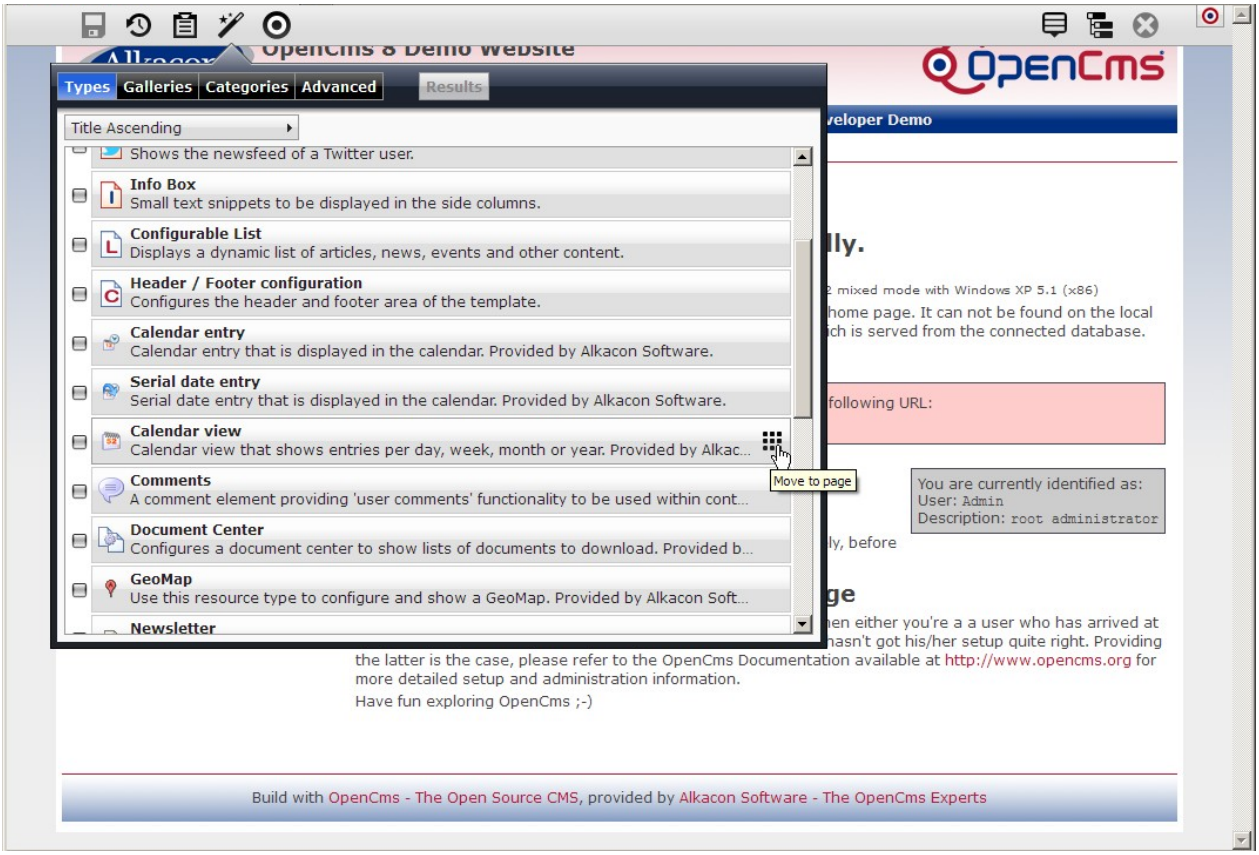

Figure 2: Drag a new OAMP Calendar view from the "Add Wizard".

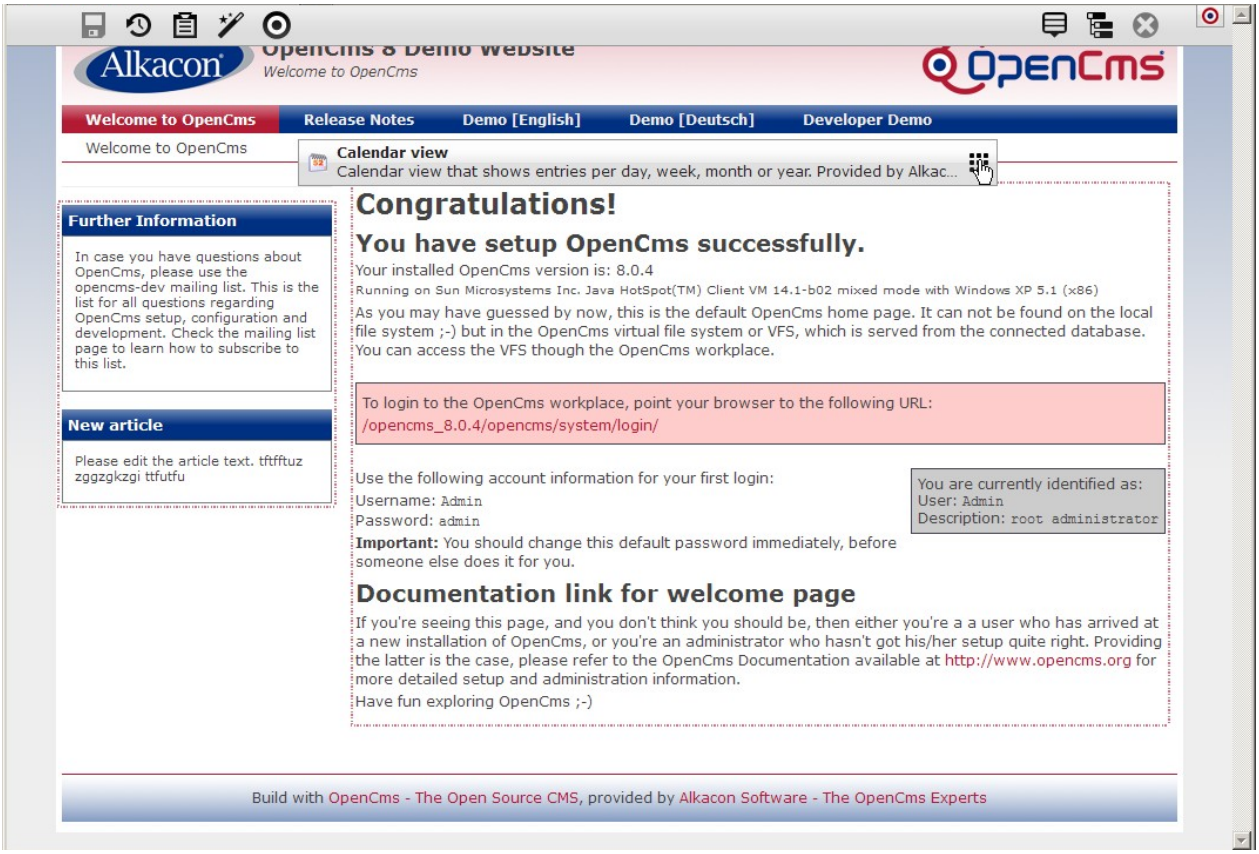

Figure 3: Dropping the new OAMP Calendar view to destination container.

4.1.2 Editing an OAMP Calendar view

To edit the newly created OAMP Calendar view click on the ADE icon in the upper right corner of the OAMP Calendar view and select "Edit".

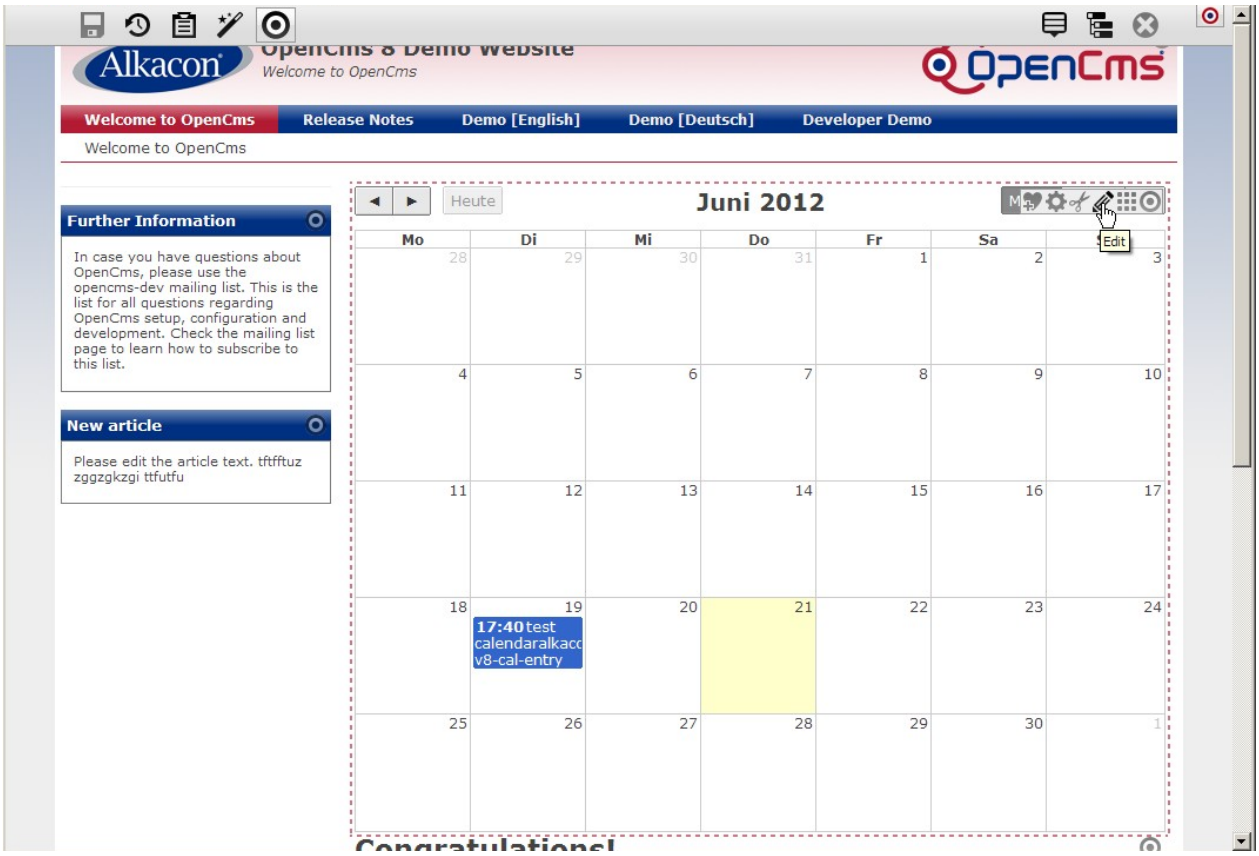

Figure 4: Open the ADE Editor.

The following fields are available for editing:

- **Title:** The title of the page, this is only used to set the Title property on the file, it is not displayed on the displayed overview lists.
- **Text (optional):** A rich text field that will be shown above all calendar overview lists, if activated.
- **Default view:** The default overview list that is triggered when a day is clicked in the calendar month side element. This can be the daily, weekly, monthly or yearly overview, with the daily overview as default value.
- **Individual entries:** If checked, it is possible to define which entry types should be shown in the calendar in the entry configuration fields. If not checked, the calendar will show only entries from the resource types shipped with the Alkacon OAMP Calendar module.
- **Entry configuration:** Here resource types can be specified that should be shown as entries in the calendar. If additional resource types should be selectable, the XSD `/system/modules/com.alkacon.opencms.v8.calendar/schemas/calendarviewresconf.x` has to be adjusted to display the additional types in the select box. The folder where to collect the resources has to be specified, too.
  Note: Resources that should be shown as calendar entries require that some properties are set on them. Please refer to the next section for details.

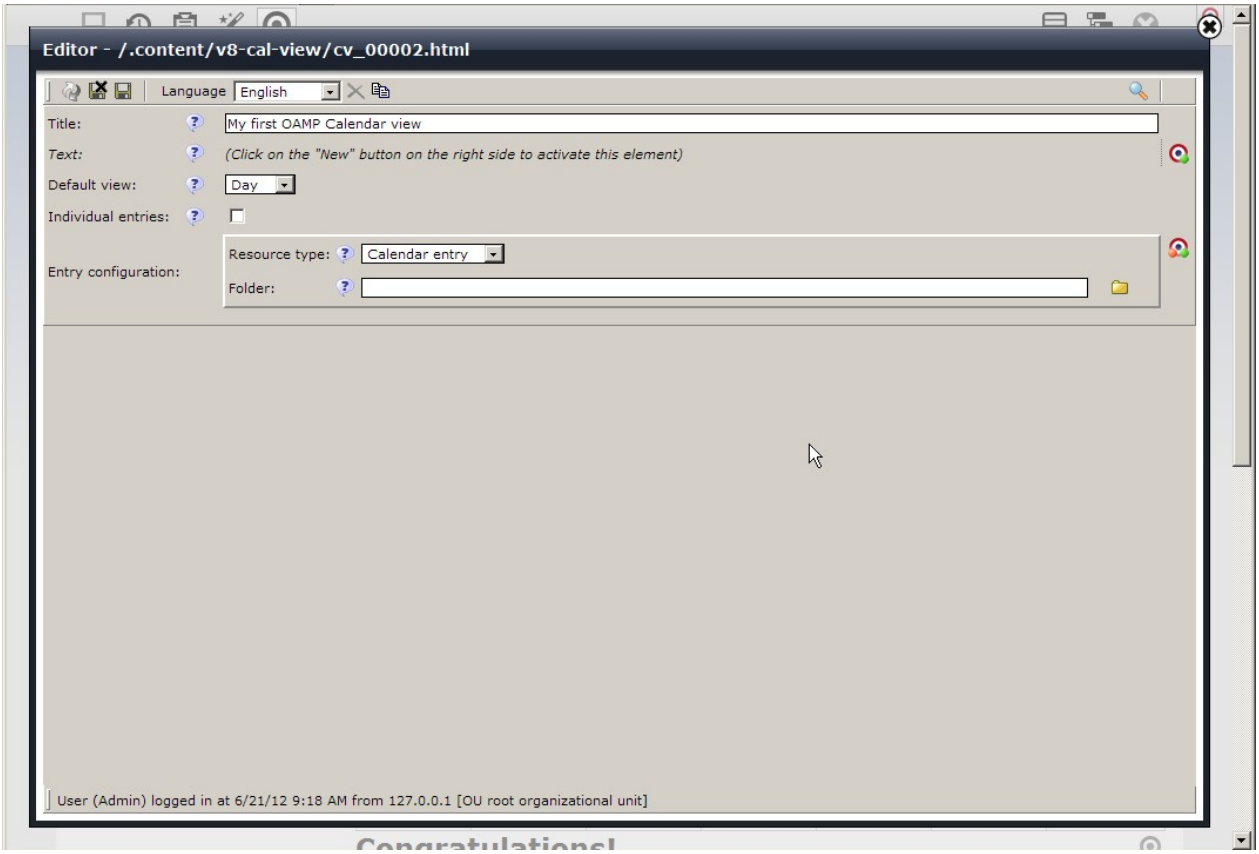

Figure 5: OAMP Calendar view in ADE Editor

4.1.3 Adding an existing OAMP Calendar view to your page

You can also select an existing OAMP Calendar view from the "Add Wizard" by double-clicking the Resource type **Calendar view** or by checking the box left to it and clicking "Results". From the displayed results, select the Calendar view you need and add it to your page by Drag & Drop.

4.2 Resource type Calendar entry

4.2.1 Adding a new OAMP Calendar entry to a page

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

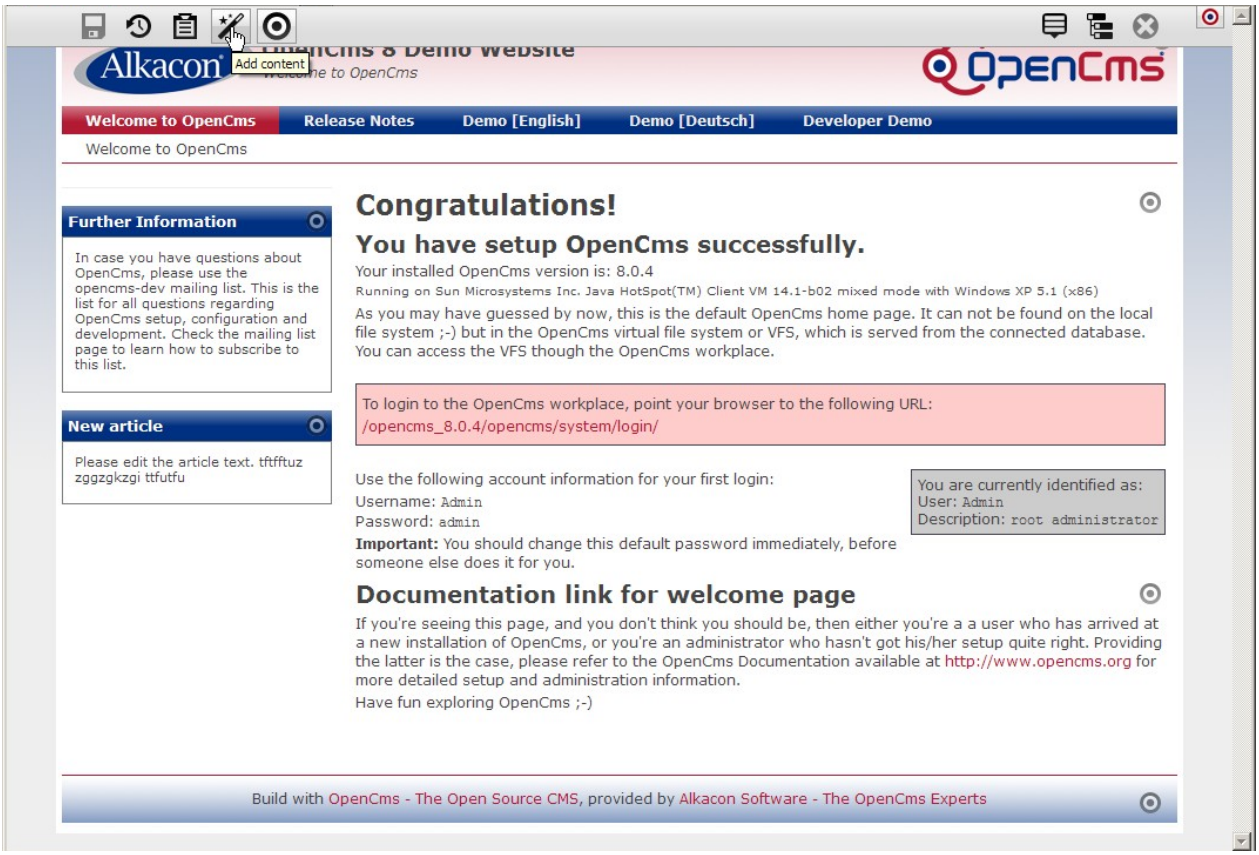

Figure 6: Open the "Add Wizard" in the ADE toolbar.

By default the new resource type **Calendar entry** 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 **Calendar entry** where you need it and release the mouse-button.

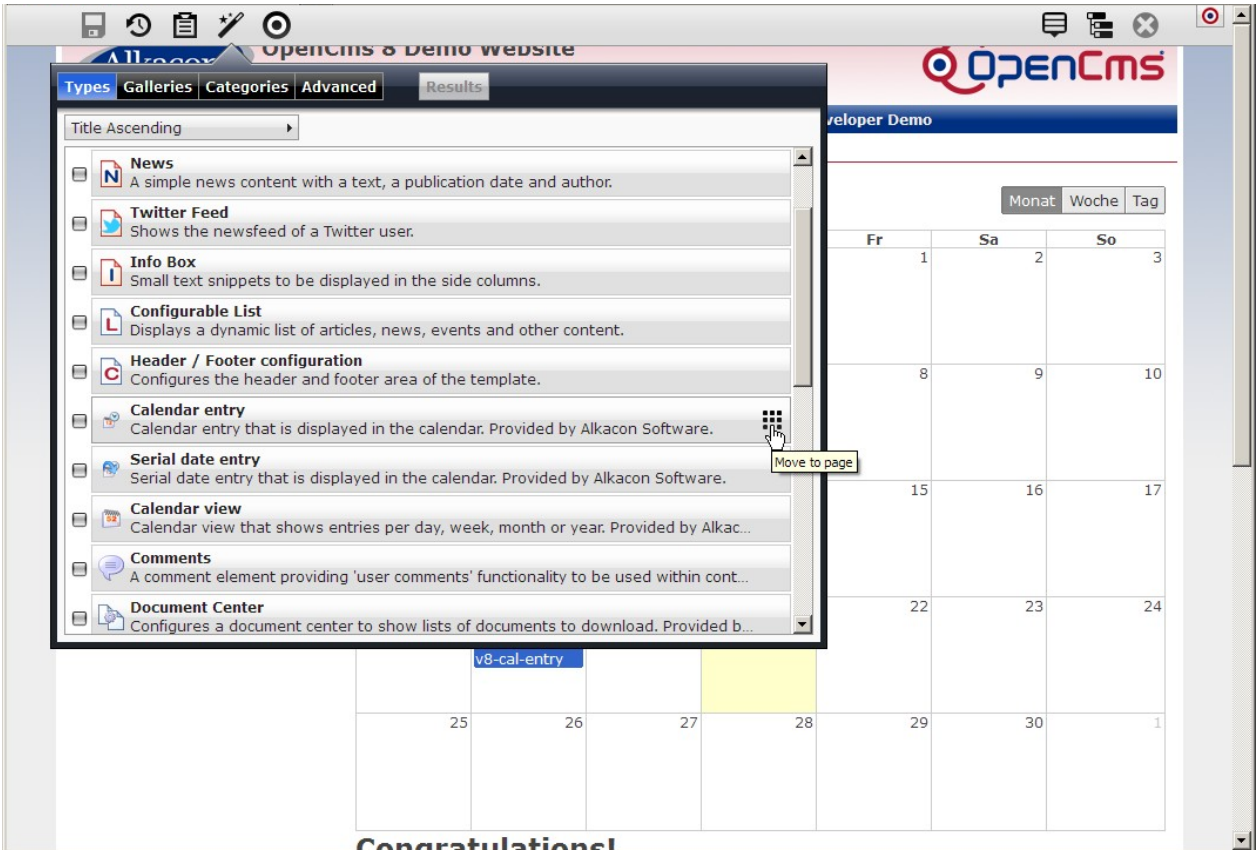

Figure 7: Drag a new OAMP Calendar entry from the "Add Wizard".

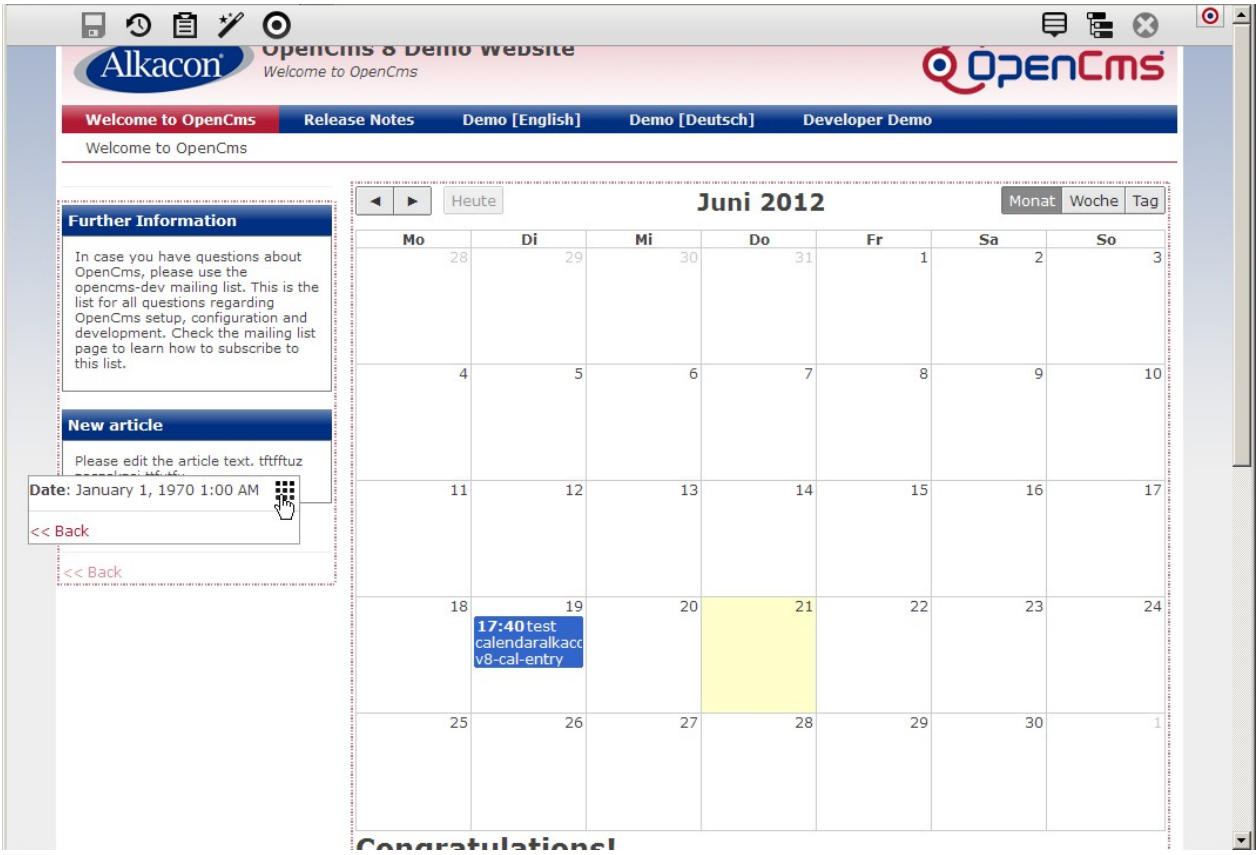

Figure 8: Dropping the new OAMP Calendar entry to destination container.

4.2.2 Editing an OAMP Calendar entry

To edit the newly created OAMP Calendar entry click on the ADE icon in the upper right corner of the OAMP Calendar entry and select "Edit".

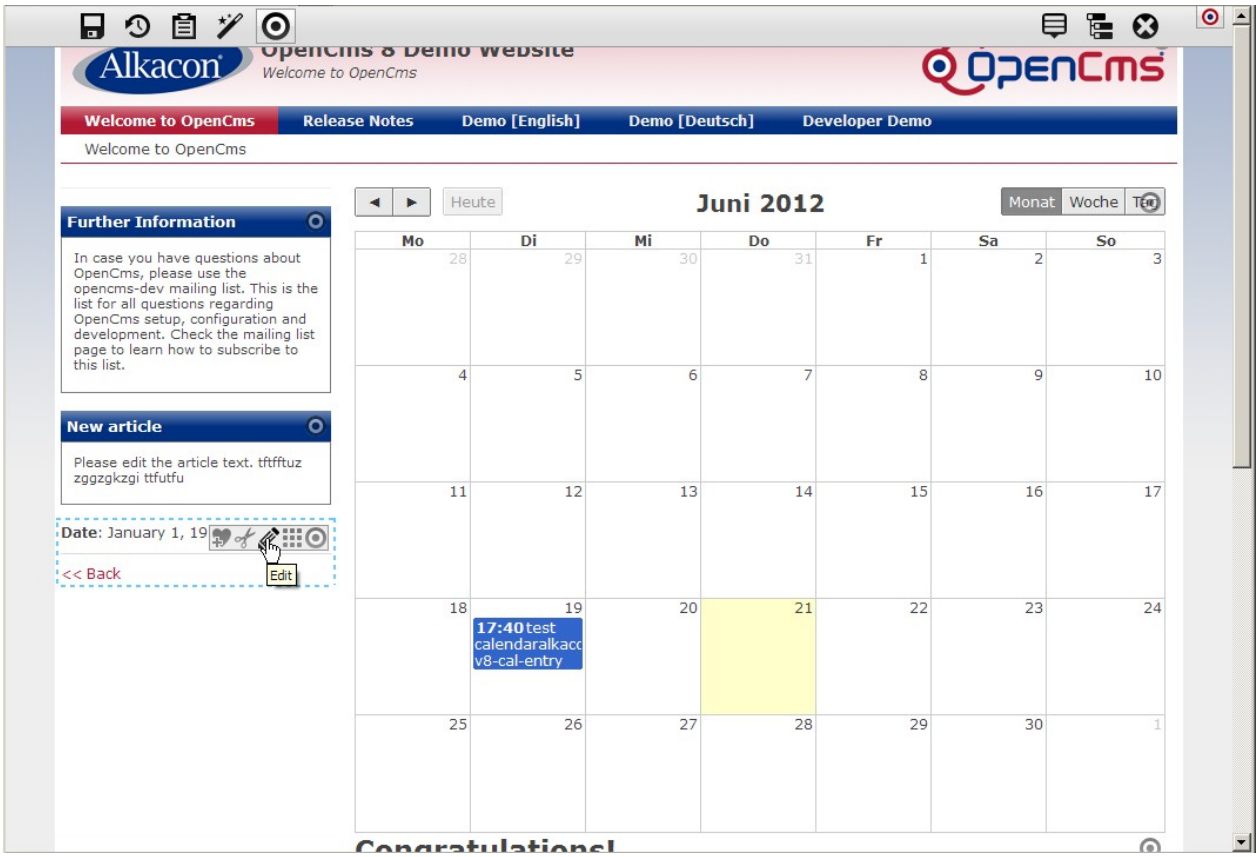

Figure 9: Open the ADE Editor to edit the OAMP Calendar entry.

The following fields are available for editing:

- **Title:** The title of the date entry.
- **Teaser:** Short text that is shown in overviews.
- **Text:** Detailed text of the date entry.
- **Location:** The location where the entry is.
- **Link:**
  - **Link URI:** The URI of the link, either an internal resource or to an external website.
  - **Link Description:** The description text of the link.
- **Show time:** If checked, the time of the entry will be shown, otherwise not.
- **Date:** The date when the entry is scheduled.
- **End date:** The end date of the entry, if needed.

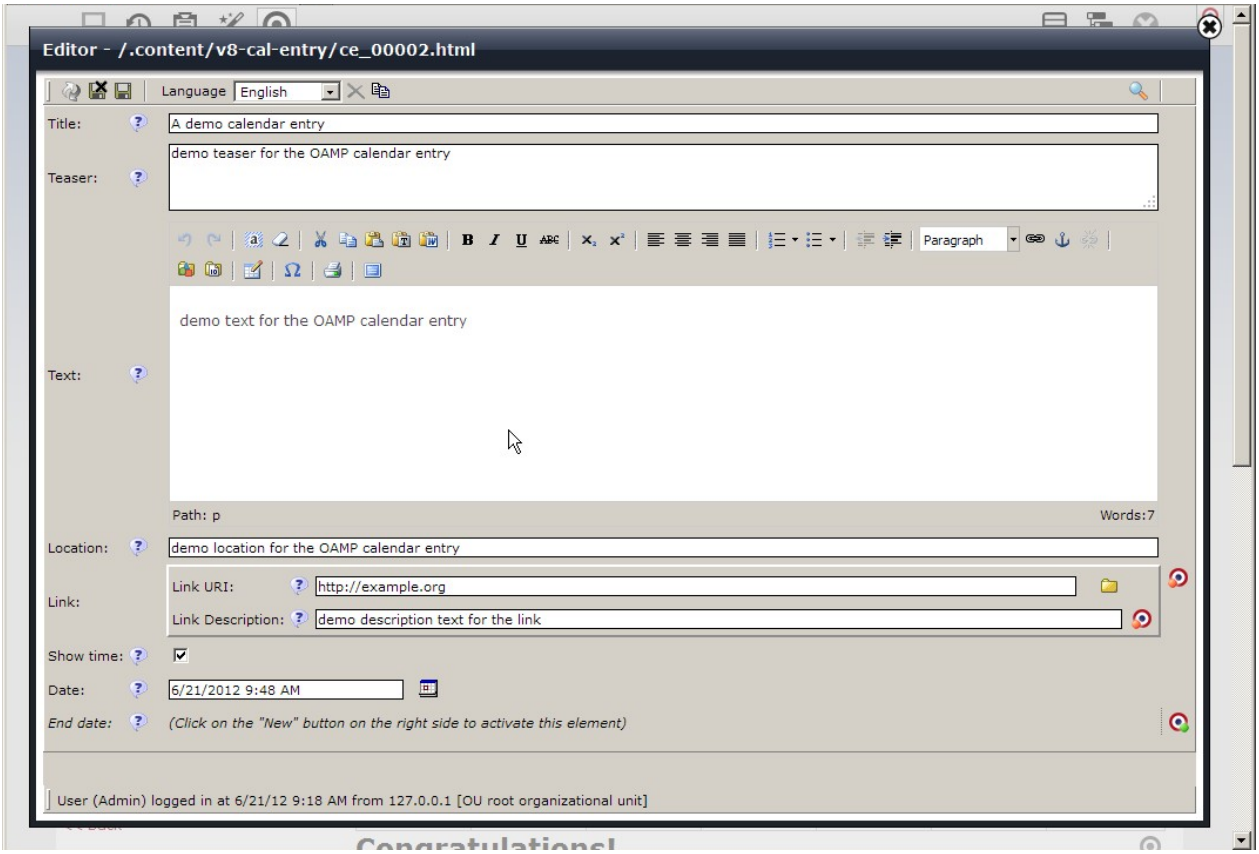

Figure 10: OAMP Calendar entry in ADE Editor

4.2.3 Adding an existing OAMP Calendar entry to your page

You can also select an existing OAMP Calendar entry from the "Add Wizard" by double-clicking the Resource type **Calendar entry** or by checking the box left to it and clicking "Results". From the displayed results, select the Calendar entry you need and add it to your page by Drag & Drop.

4.3 Resource type Serial date entry

4.3.1 Adding a new OAMP Serial date entry to a page

To add a new OAMP Serial date entry to an existing page, click on the "Add Wizard" symbol in the ADE toolbar

By default the new resource type **Serial date entry** 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 **Serial date entry** where you need it and release the mouse-button.

(Similar to "Adding a new OAMP Serial date entry to a page").

4.3.2 Editing an OAMP Serial date entry

To edit the newly created OAMP Serial date entry click on the ADE icon in the upper right corner of the OAMP Serial date entry and select "Edit".

The following fields are available for editing:

- **Title:** The title of the serial date entry.
- **Teaser:** Short text that is shown in overviews.
- **Text:** Detailed text of the date entry.
- **Location:** The location where the entry is.
- **Link:**
  - **Link URI:** The URI of the link, either an internal resource or to an external website.
  - **Link Description:** The description text of the link.
- **Show time:** If checked, the time of the serial date entry will be shown, otherwise not.
- **Serial Date:** The definition of the pattern for the serial date.
- **Change:**
  - **Change:** Date of the change. If no other field is activated, the selected date will be removed from the date series.

    Title: Alternative title that should be shown as change.
  - **Teaser:** Short text that should be shown as change.
  - **Text:** Detailed text that should be shown as change.
  - **Location:** Location that should be shown as change.
  - **Time:** If the time is changed, it should be specified here.
  - **Show time:** If checked, the time of the serial date will be shown as change, otherwise not.
- **Interruption:**
  - **Start:** Sets the start date of the date series interruption.
  - **End:** Sets the end date of the date series interruption.

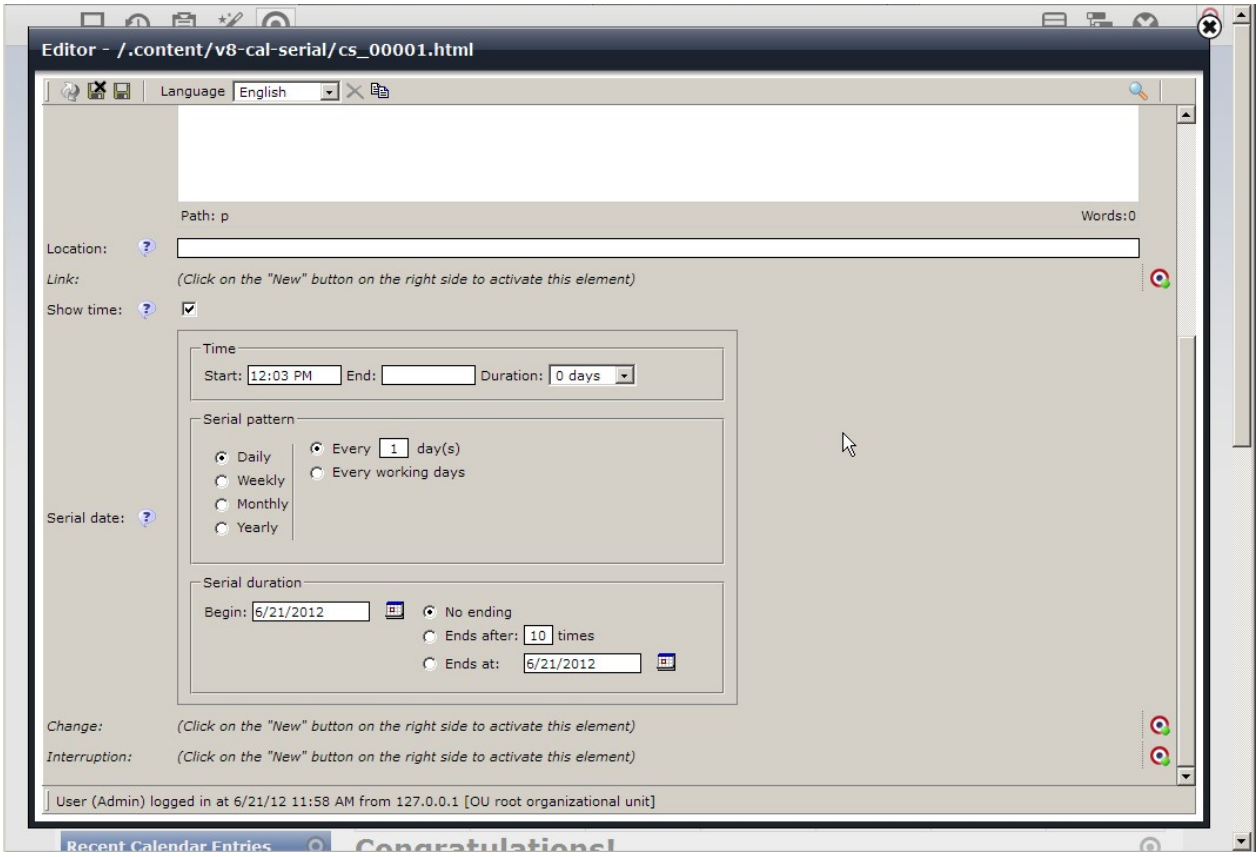

Figure 11: OAMP Serial date entry in ADE Editor

(Similar to "Editing an OAMP Calendar entry").

4.3.2.1 Serial date changes

If the date series should display other values at a certain date or should be interrupted at a specific date, a change can be defined.

Therefore, activate an optional "Change" element when editing a serial date entry. One of the first 52 occurrences of the serial date can be changed.

If you activate only the "Change" selector and do not activate any additional elements like "Text" or "Teaser", the selected date will be removed from the date series. As soon as you activate another field, the value entered will be used for the selected date instead of the global value.

4.3.3 Adding an existing OAMP Serial date entry to your page

You can also select an existing OAMP Serial date entry from the "Add Wizard" by double-clicking the Resource type **Serial date entry** or by checking the box left to it and clicking "Results". From the displayed results, select the Serial date entry you need and add it to your page by Drag & Drop.

(Similar to "Adding an existing OAMP Calendar entry to your page").

5 Configuration

5.1 Create detail pages in the Sitemap Editor

The OAMP **Calendar view** automatically displays all dates of the resource types **Calendar entry** and **Serial date entry**.

In an OAMP Calendar view all Calendar entries or serial dates are clickable and link to a detail page.

To define the detail pages please open the **Sitemap Editor**.

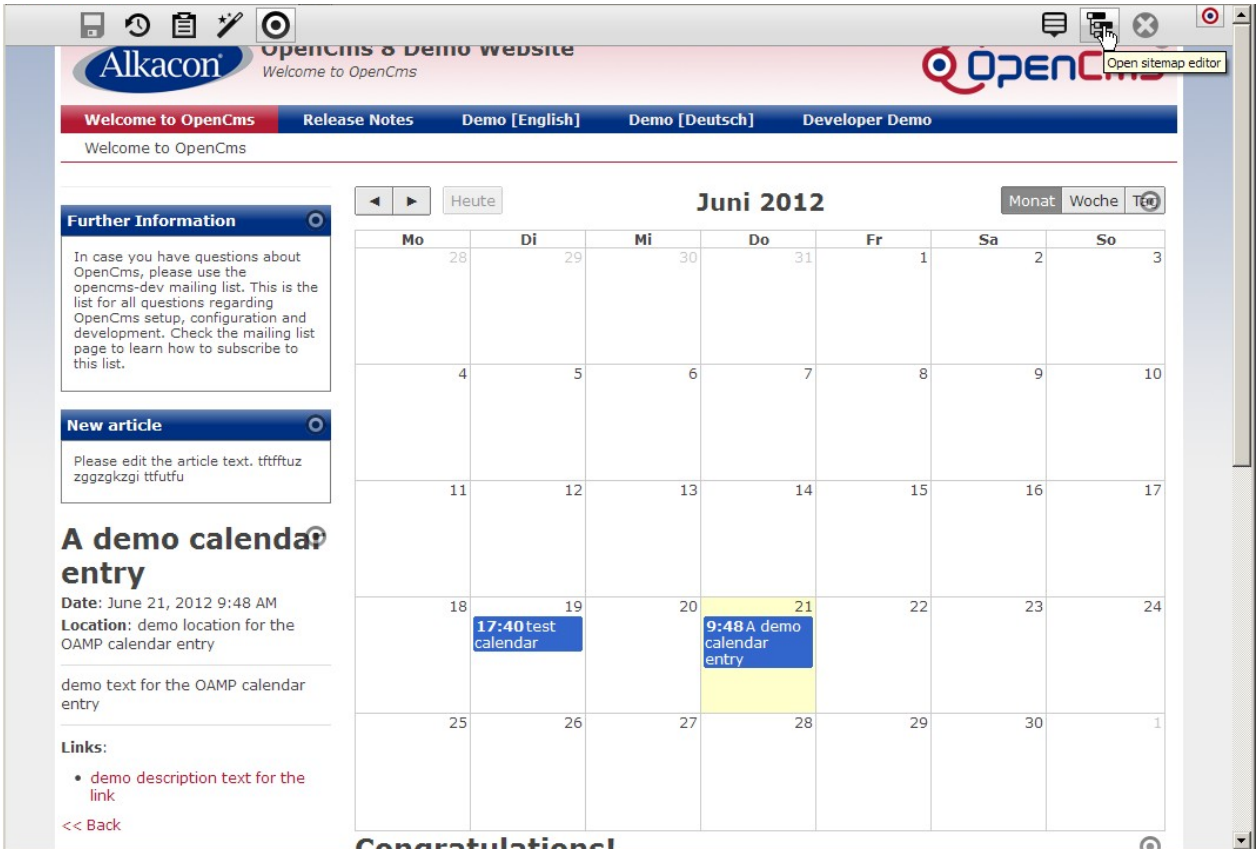

Figure 12: Open the Sitemap Editor to add detail pages.

In the Sitemap Editor now click on the **Create page** icon:

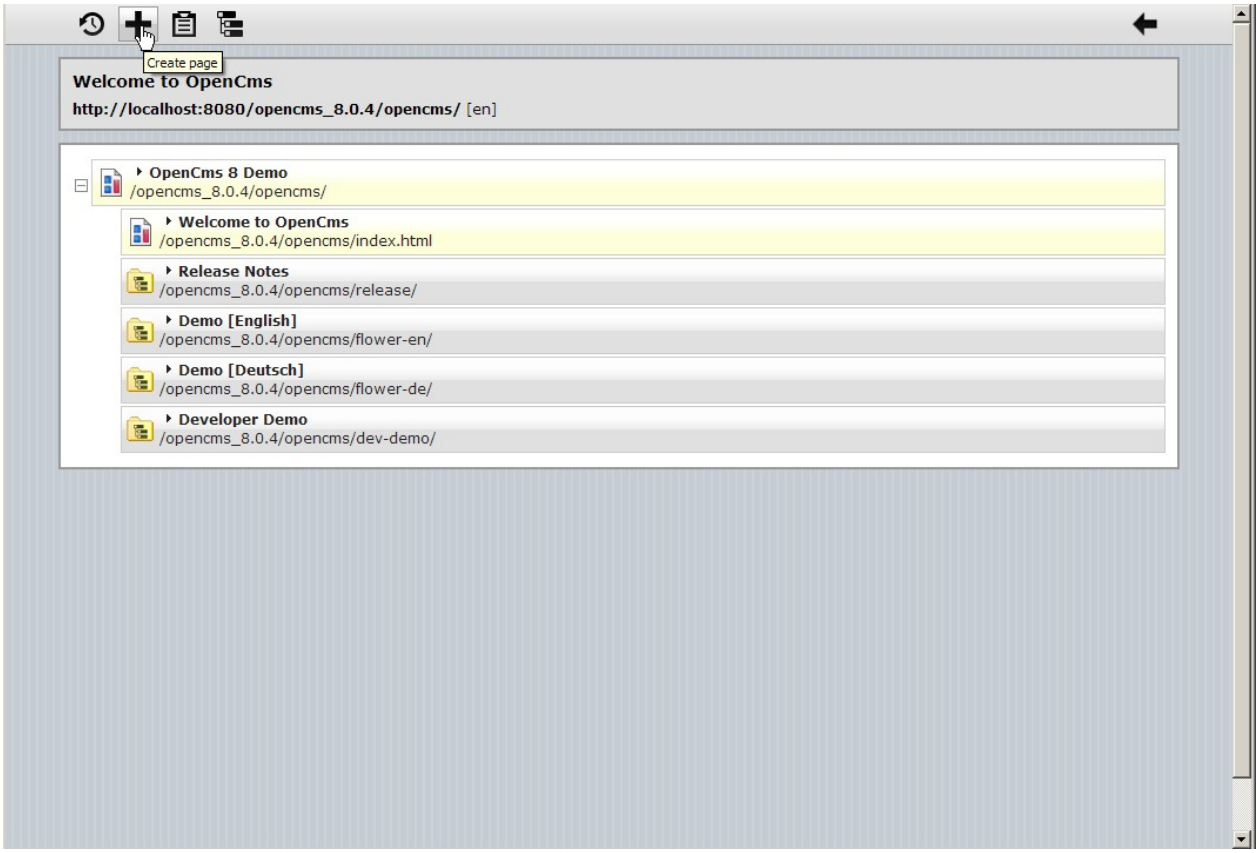

Figure 13: Click the create page icon in the Sitemap Editor.

Now create the detail pages for the resource types **Calendar entry**, **Serial date entry** and **Calendar view** according to your requirements. In the given example the default names are kept.

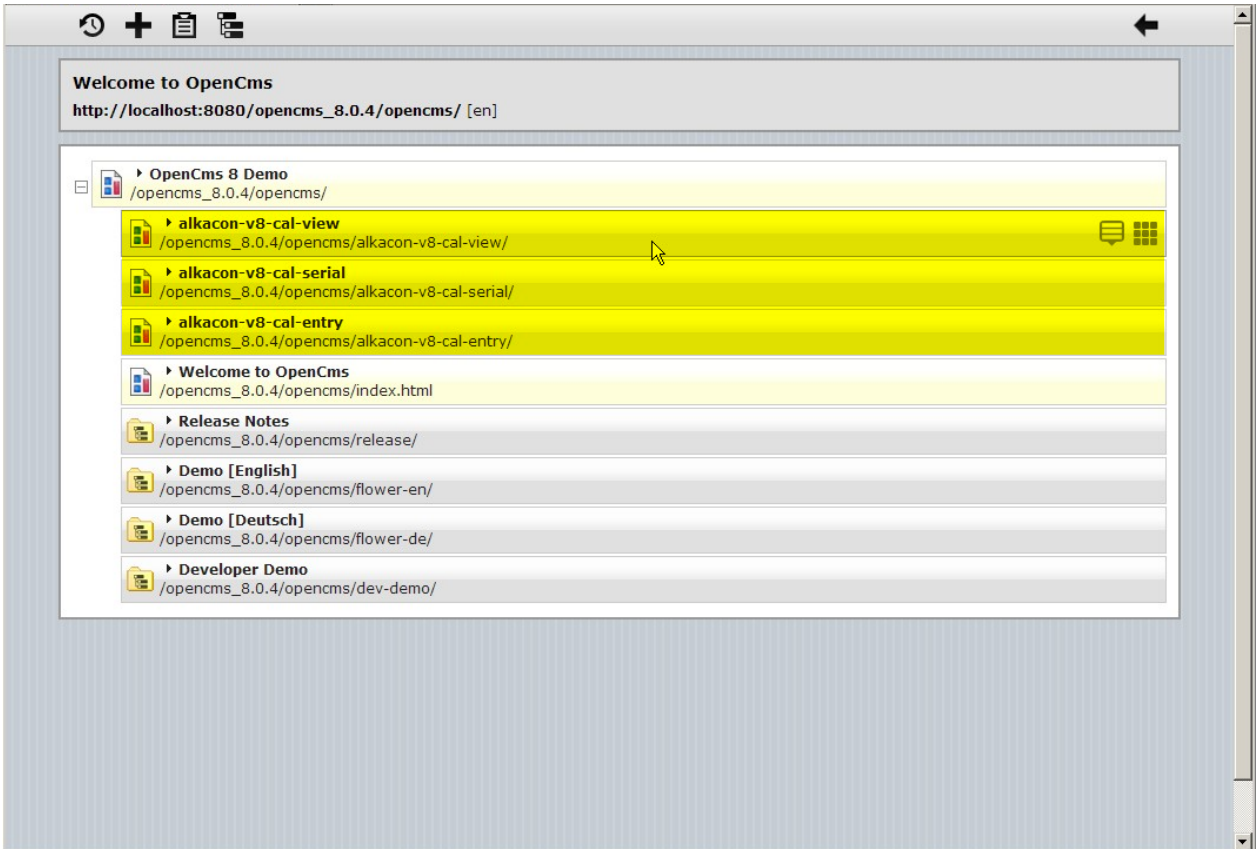

Figure 14: Detail pages in the Sitemap Editor.

Per default these newly created detail pages would appear as Navigation elements on your website. To remove these detail pages from the Site Navigation select **Remove from Sitemap** from the Context menu in the Sitemap Editor.

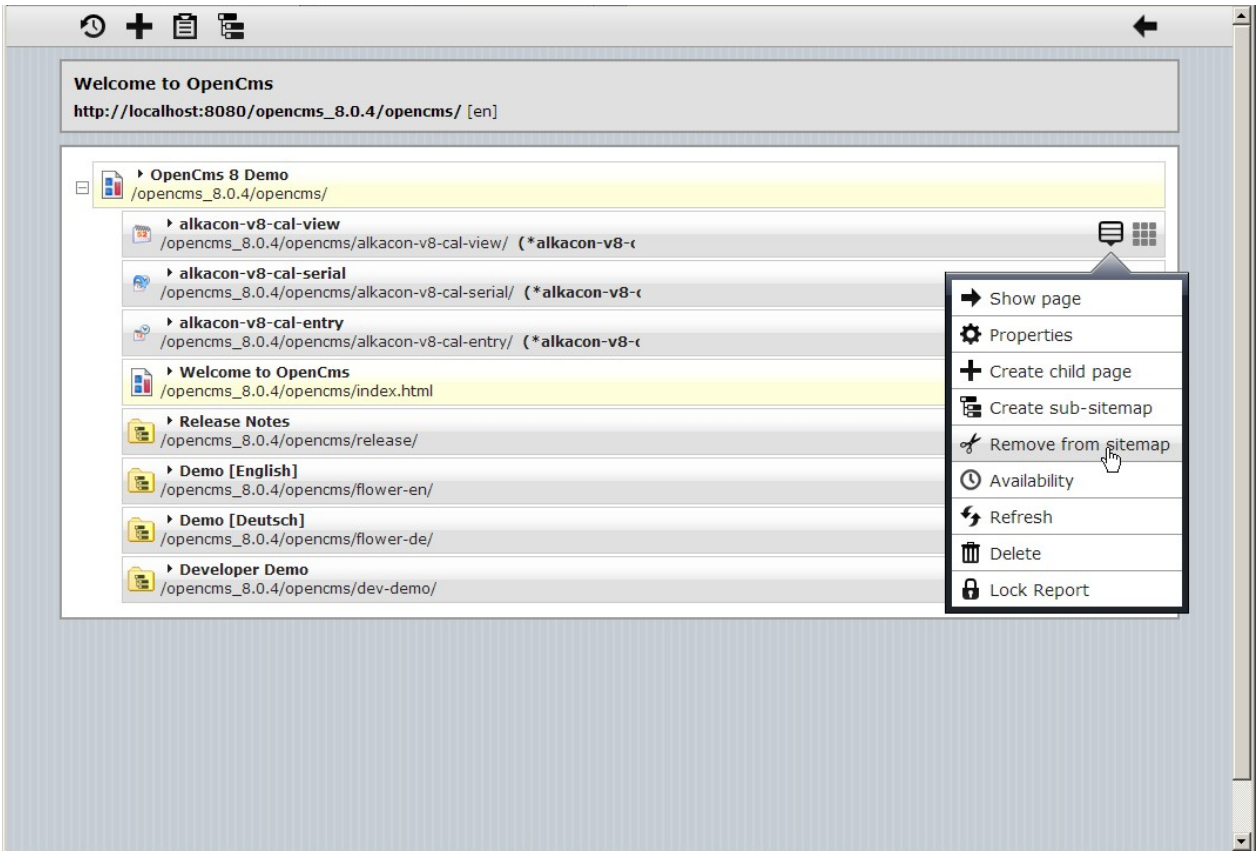

Figure 15: Remove a detail page from the Sitemap (Navigation)

5.2 Sitemap Configuration

Now switch to the OpenCms workplace and go to the `/.content/` folder in your website (e.g. `/sites/deafult/`).

Right-click the **Sitemap configuration** file `.config` and select edit.

In the Editor select the tab "detail pages" and add the following resource types and detail pages:

- **Type:** `alkacon-v8-cal-serial`
- **Page:** `<path-to-your-serial-date-detail-page>`
- **Type:** `alkacon-v8-cal-view`
- **Page:** `<path-to-your-calendar-view-detail-page>`
- **Type:** `alkacon-v8-cal-entry`
- **Page:** `<path-to-your-calendar-entry-detail-page>`

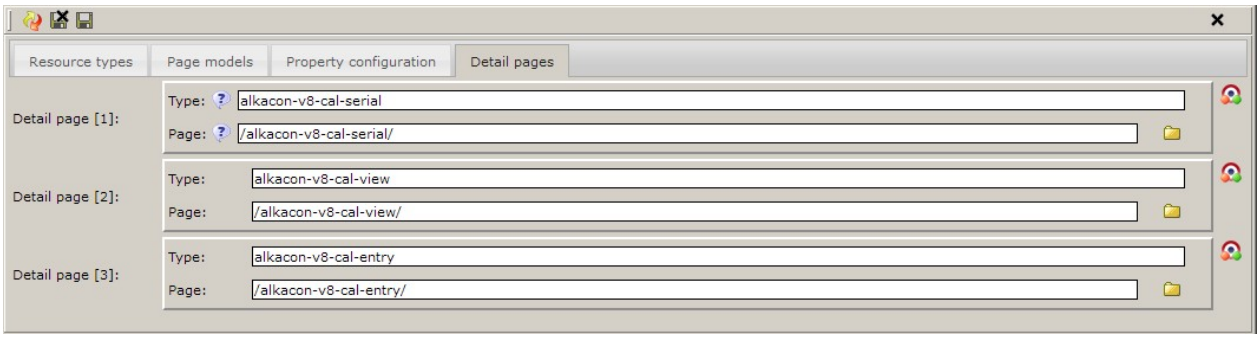

Figure 16: Add detail pages to the sitemap configuration

6 The Frontend View

After saving and reloading the page the OAMP **Calendar view** should seamlessly integrate with your web page.

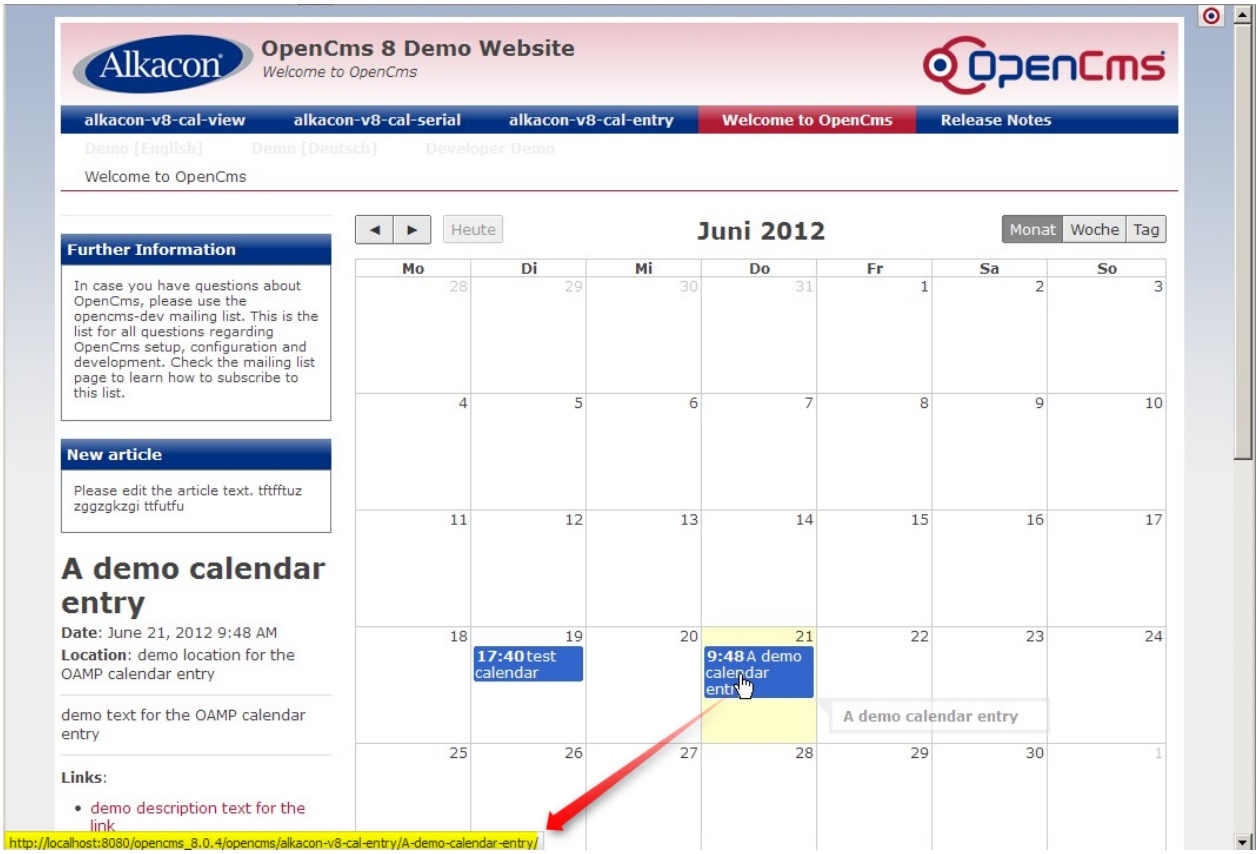

Figure 17: Demo frontend view of the OAMP Calendar view with several Calendar entries linking to the detail pages.

When clicking the link of an Calendar entry in an OAMP Calendar view the detail page opens showing the Calendar entry with detailed information.

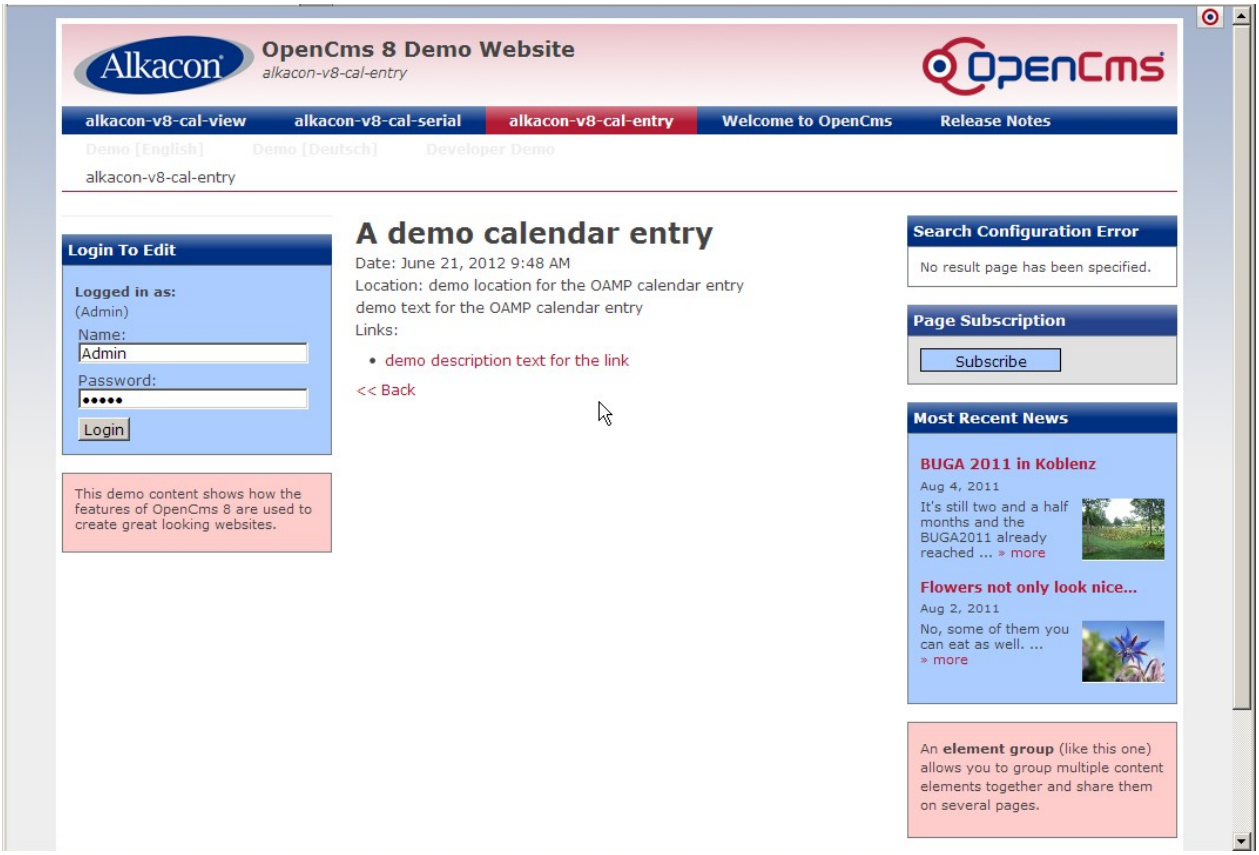

Figure 18: Frontend view of an OAMP Calendar entry as a detail page.

7 Additional configuration

7.1 Create a list overview of Calendar entries

You can build a list overview of Calendar entries or Serial date entries easily with OpenCms 8's built-in resource type **Dynamic List**.

7.1.1 Create a dynamic list

To create a dynamic list open the Add Wizard from the ADE toolbar.

Drag a new instance of the resource type "Configurable list" to where you need it on your website.

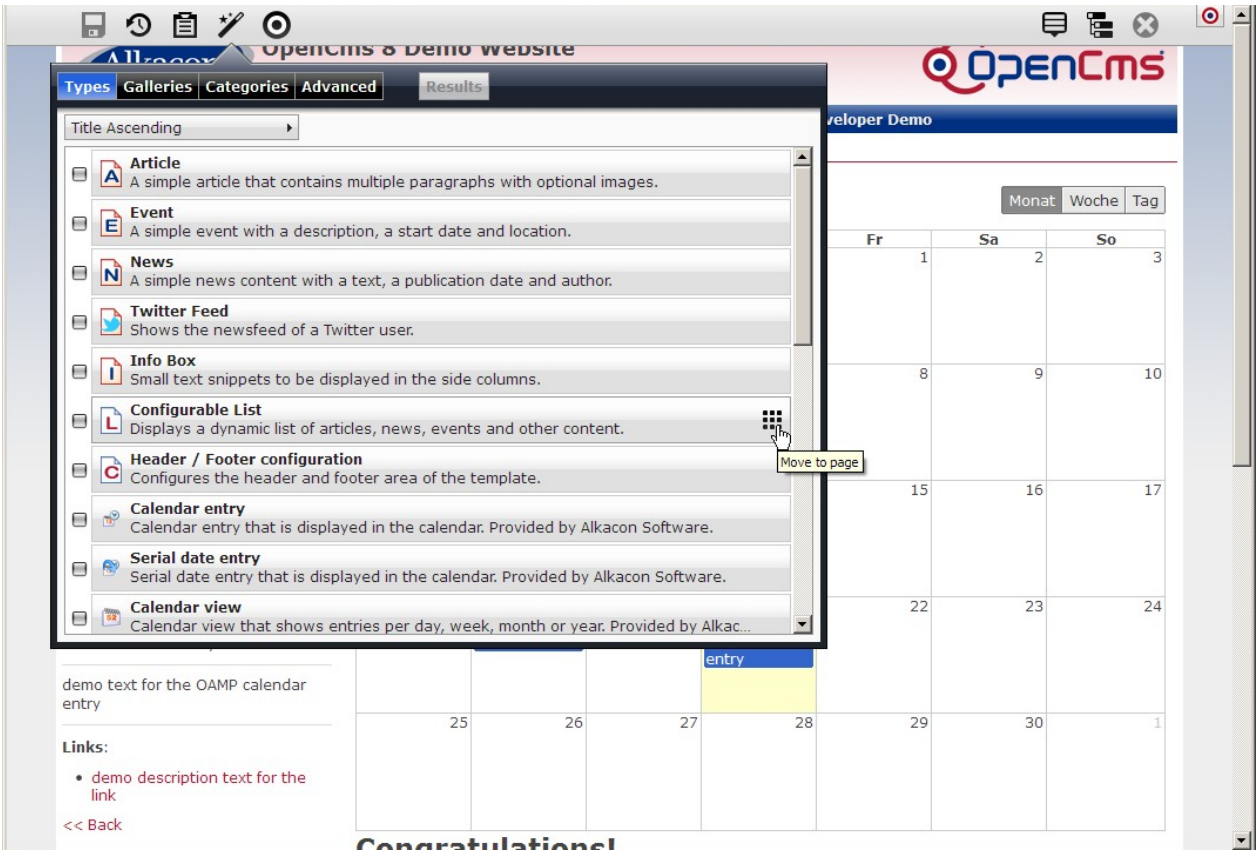

Figure 19: Add a Configurable list from the Add Wizard.

From the context menu of the Configurable list select edit to open the ADE editor.

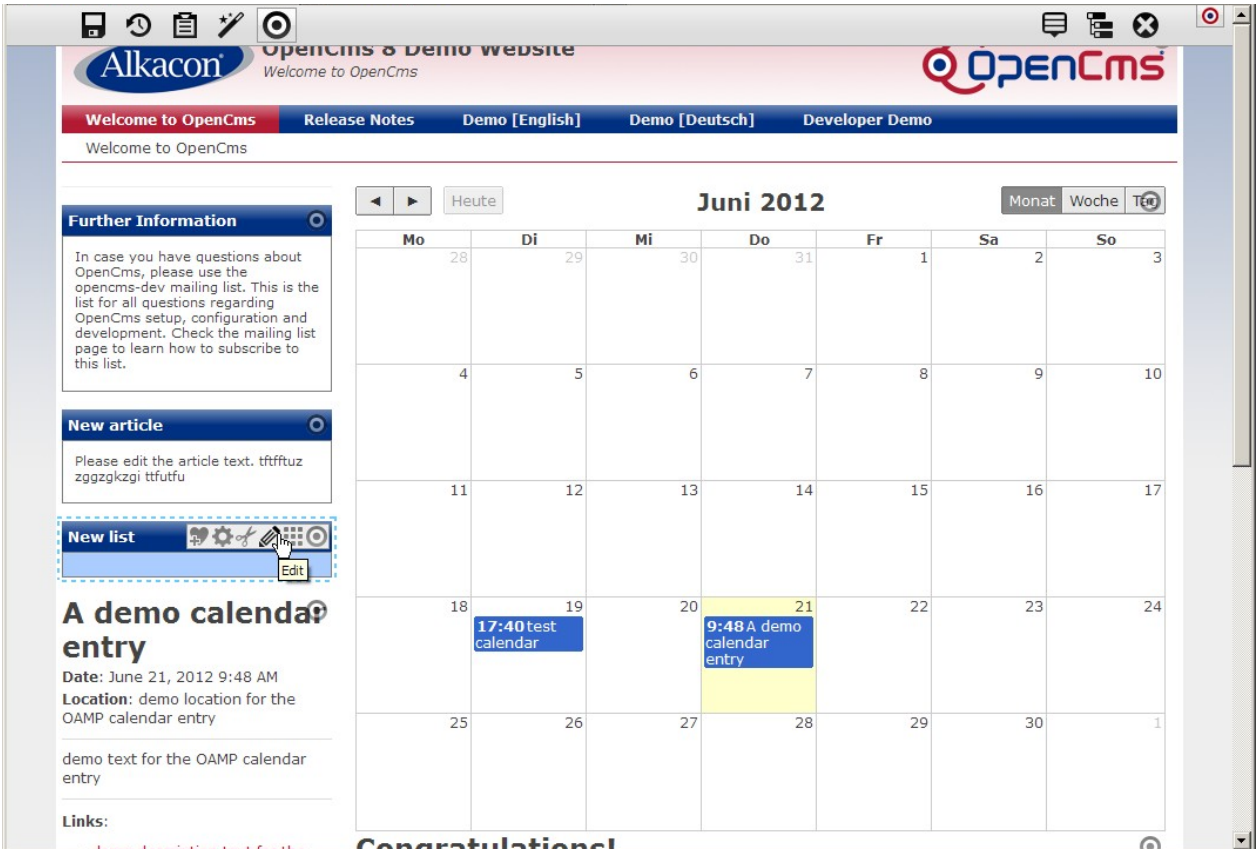

Figure 20: Open the ADE Editor.

7.1.2 Tab "General Settings"

Minimum configuration of a list in the tab "General Settings":

- **Title:** Title of your Configurable list. Displayed on the website.
- **Collector:** The collector to be used for the resources in the list.
- **Parameter:** The parameter of the collector to use.
- **Links:** Links to use in the parameters of the collector as macros, e.g. %(link1).

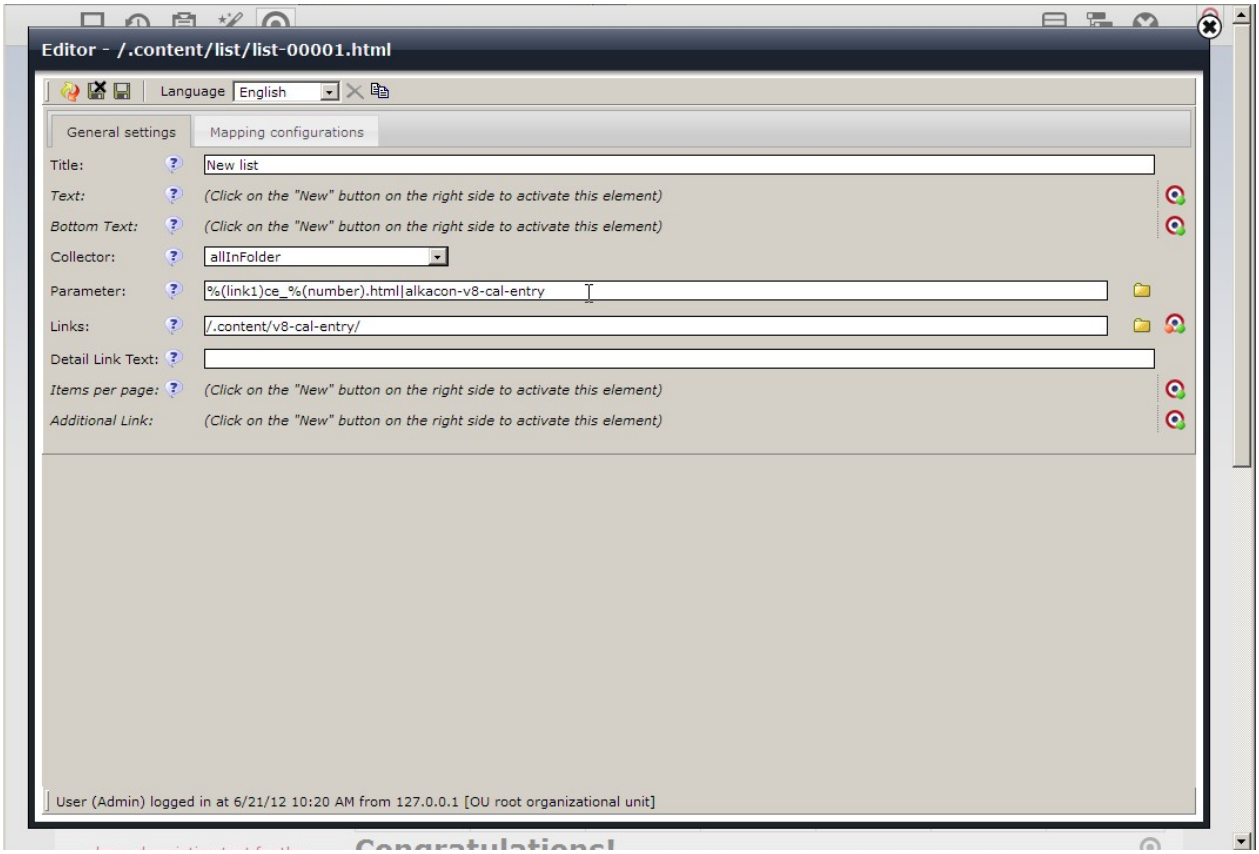

Figure 21: Edit the Configurable list in the ADE Editor. Tab "General Settings".

7.1.3 Tab "Mapping Configurations"

Required configuration of a list in tab "Mapping Configurations":

You should match all the Fields from the Calendar entry XSD you want to have displayed in the list, e.g. Title, Text, Link and Date.

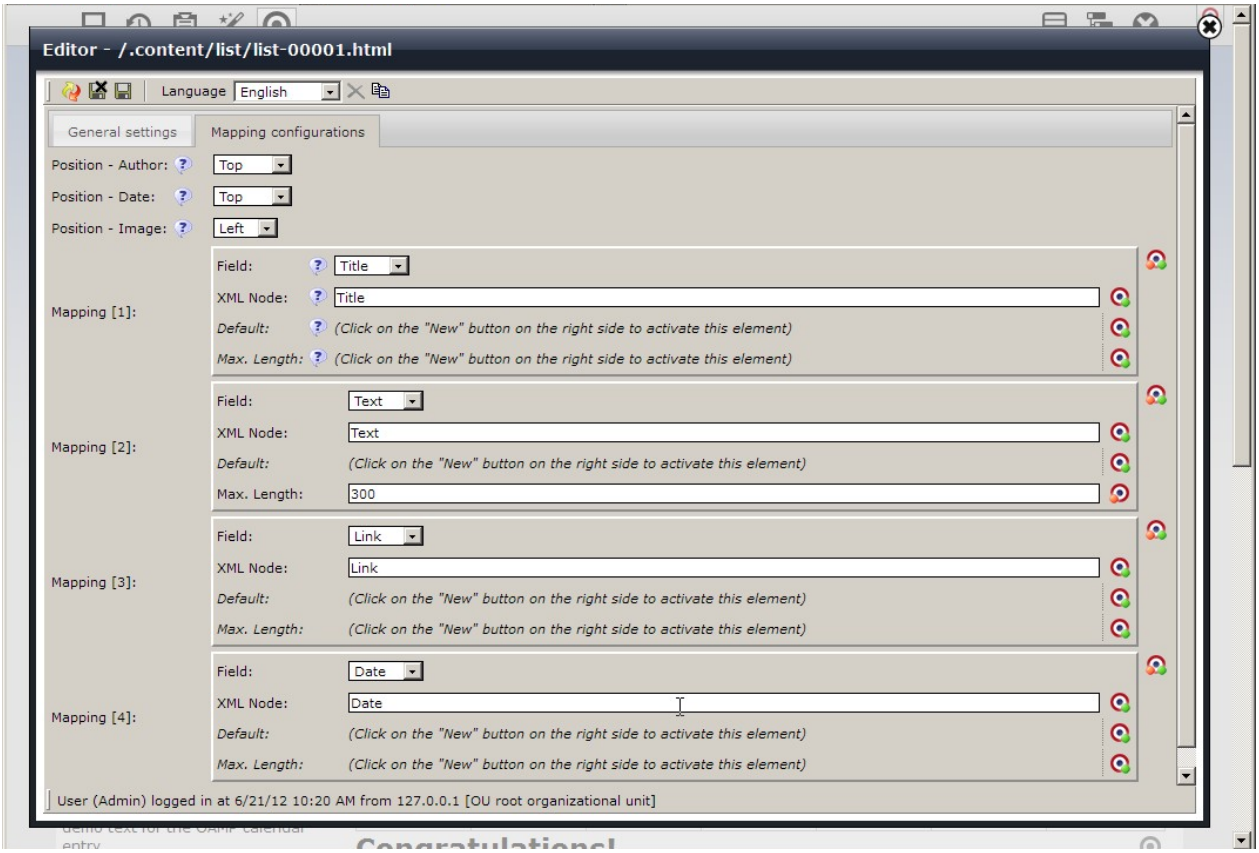

Figure 22: Edit the Configurable list in the ADE Editor. Tab "Mapping Configurations".

7.1.4 Front End view of the list

Figure 23: Frontend view of a configurable list of Calendar entries.

7.2 Properties

The calendar introduces some new properties and also uses standard properties to create calendar entries. This section explains the property usage in detail.

7.2.1 Properties used by the calendar

The following properties are used by the calendar:

- **Title:** This property is used as title for calendar entries shown in overview lists.
- **Description:** This property stores the teaser text for calendar entries that is shown in the overviews.
- **calendar.dateserialchange:** Eventual serial date changes are stored (automatically) in the value of this property.
- **calendar.enddate:** The optional end date of an entry that is used for generating the overviews as long value. For serial date entries, this property can also be used to store the class name of a class implementing the `com.alkacon.opencms.v8.calendar.I_CmsCalendarSerialDateContent` interface.
- **calendar.showtime:** Can be true or false and indicates if the time information should be shown for the entry.
- **calendar.startdate:** The start date of the entry is stored in this value, as long value for common entries and key/value pairs for serial entries.
- **calendar.uri:** The absolute path to the calendar overview page that should be used for calendar configuration and as link target for links when clicking on entries in the calendar

month side element. You can set this property e.g. at the site folder.

7.2.2 Properties required to display resources as calendar entries

Resources that should be displayed as calendar entries must have at least the Title and the `calendar.startdate` properties set. The optional teaser text for overview lists is stored in the `Description` property.

The `calendar.showtime` property is also optional and determines if the time information for an entry is shown in the calendar views or not.

7.3 Configuration of holidays

The calendar can display local holidays based on the currently used Locale of the page. These holidays can be configured in a resource bundle named holidays that is placed in the OpenCms VFS folder
`/system/modules/com.alkacon.opencms.v8.calendar/classes/com/alkacon/opencms/v8/ca`
The bundle files contain the date format that is used for a holiday definition in the key ""calendar.holidays.datepattern" and the holidays that should be displayed in the calendar views. The holiday definitions have the format:

```
{DATE} = {NAME_OF_HOLIDAY};{TYPE_OF_HOLIDAY}
```

The type of a holiday is either 1 (meaning "maybe a holiday") or 2 (meaning "a holiday"). Excerpt of an English holiday configuration file:

```
# Date pattern for holidays that are defined
calendar.holidays.datepattern=MM/dd/yyyy

# Holidays for 2012
1/1/2012=New Year's Day;2
2/14/2012=Valentine's Day;1
4/6/2012=Good Friday;2
4/8/2012=Easter Sunday;2
...
```

Be sure to publish the files after changing them. Restart the servlet container afterwards that the changes take effect.

8 Using the module API

All classes used to generate the front end views, to calculate the entries to show and to manage serial date entries are part of the package `com.alkacon.opencms.v8.calendar.`

It contains the following classes:

- **A_CmsCalendarSerialDateOptions:** implements the basic methods of serial date options needed for serial date changes.
- **CmsCalendar:** creates a calendar data structure usable to display different calendar views on the frontend. A calendar contains a list of CmsCalendarEntry objects and a method to filter entries using an initialized I_CmsCalendarView object.
- **CmsCalendarDisplay:** extends CmsCalendar. Provides help methods to display calendar entries for the frontend. This includes methods to get calendar entries for a given date range as well as common settings usable on the frontend to render holiday days and output tables.

- **CmsCalendarEntry:** represents a single calendar entry and provides information about the entry data and entry date.
- **CmsCalendarEntryData:** stores information about the data of a single calendar entry. This is the entry title, description, type, the detail URI in the OpenCms VFS and the weekday status.
- **CmsCalendarEntryDate:** stores the date information of a single calendar entry. This is basically the start and end date of the entry with some helper methods to determine duration and time information more easily.
- **CmsCalendarEntryDateSerial:** stores the serial date information of a single calendar entry.
- **CmsCalendarMonthBean:** provides help methods to display monthly views of calendar entries. This includes methods to build the complete HTML output for a single month and CSS style settings that are used by the build methods.
- **CmsCalendarSerialDateChange:** represents a changed entry in a date series at a certain date.
- **CmsCalendarSerialDateDailyOptions:** options for a daily serial calendar entry. Provides the necessary information about a daily serial calendar entry.
- **CmsCalendarSerialDateFactory:** factory class that provides methods to create serial date instances from a property value Map.
- **CmsCalendarSerialDateMonthlyOptions:** options for a monthly serial calendar entry. Provides the necessary information about a monthly serial calendar entry.
- **CmsCalendarSerialDateWeeklyOptions:** options for a weekly serial calendar entry. Provides the necessary information about a weekly serial calendar entry.
- **CmsCalendarSerialDateYearlyOptions:** options for a yearly serial calendar entry. Provides the necessary information about a yearly serial calendar entry.
- **CmsCalendarStyle:** provides formatting CSS class names to generate the calendar frontend output. This class contains getters and setters to provide CSS class names that should be used to build the calendar side element.
- **CmsCalendarViewSimple:** filters calendar entries to get a sorted list of entries for a simple calendar view like daily, weekly or monthly views. Provides a comparator to filter entries for a given date range, returning 0 if the entry is inside the range, and another comparator to sort the found entries by their start date ascending.
- **CmsSerialDateContentBean:** provides methods to generate the detail page of the serial date, depending on the passed request parameter value for the start date. Implements the interface I_CmsCalendarSerialDateContent for the provided serial date resource type.
- **CmsSerialDateSelectWidget:** provides a widget for a serial date select box. This can be used to define changes in the serial date for specific dates. The widget can be configured to read the serial date information from a property, the maximum number of available select box options can be configured as well:
  `<layout element="Change" widget="SerialDateSelectWidget" configuration="property:calendar.startdate|count:25" />`.
- **CmsSerialDateWidget:** provides a serial date widget, for use on a widget dialog.
- **CmsSerialDateXmlContentHandler:** Special XML content handler that validates serial date series changes and writes changed occurences to a configurable property value.
- **I_CmsCalendarEntryData:** provides information about the data of a single calendar entry.
- **I_CmsCalendarSerialDateContent:** this can be used to get serial date entries from XML content resources. The serial date entries have to provide the class name of the implementing class in the property calendar.enddate value.
- **I_CmsCalendarSerialDateOptions:** the calendar serial date options provide a method to filter entries according to the given view dates. Additionally, the serial type (e.g. weekly or

monthly series) has to be provided.

- **I_CmsCalendarView:** A calendar view is used to get user defined views on the entries of a calendar. It contains a list of view dates using the CmsCalendarEntryDate object to determine the start and end date of a view. Additionally, a comparator to check if an entry is in the view range has to be defined, as well as a sort method to sort the result list of matching calendar entries for the view.
- **Messages:** convenience class to access the localized messages of the calendar package.

8.1 Configuring another resource type to be used by the calendar

Follow these steps to show another resource type as calendar entry:

- Be sure that the resources of the new type have the required properties set, see section "Properties required to display resources as calendar entries" for details.
- Extend the XSD of the calendar view file to be able to select the resource type, have a look at section "Editing an OAMP Calendar view" for details.
- Configure your calendar view file to use individual entries, see also section "Editing an OAMP Calendar view".

8.1.1 Configuring another resource type to be used as serial date entry

The creation of a new resource type to be used as serial entry is a bit more difficult.

- Be sure that the element names storing the serial date information and the element nodes for the changes are the same as in the provided serial date content: Serial date element: Serialdate (with widget SerialDateWidget) Changes must be stored as nested element of an element Change, with the sub element Change (with widget SerialDateSelectWidget) to store the index of the change.
- The XSD of the content must use the serial date XML content handler: <handler class="com.alkacon.opencms.v8.calendar.CmsSerialDateXmlContentHandler"/>
- You have to implement the interface I_CmsCalendarSerialDateContent in the case that you have different elements to set the calendar entry data (Title, Teaser, etc.) to ensure that the changes are displayed correctly in the calendar. Have a look at the example implementation CmsSerialDateContentBean and use this as a starting point, because it also provides helper methods to show the detail page of a serial entry.
- Every resource of the type must provide the name of the implementing class in the calendar.enddate property value. This can be automatically added on resource creation by defining the property to set in the resource type definition:

```
<type class="org.opencms.file.types.CmsResourceTypeXmlContent" name="..." id="...">
  <properties>
    <property>
      <name>calendar.enddate</name>
      <value type="shared"><![CDATA[your.package.name.ImplementingClassName]]></value>
    </property>
    <property>
      <name>template-elements</name>
      <value type="shared"><![CDATA[/system/modules/.../pages/detail-....jsp]]></value>
    </property>
    ...
</type>
```