Alkacon Software GmbH

Technote

Alkacon OAMP Newsletter Module

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1 Abstract

This document describes the installation, configuration and usage of the Alkacon OpenCms Newsletter module. With the newsletter module, it is possible to send newsletter emails to subscribers of different mailing lists.

The mailing lists and subscribers can be easily managed inside OpenCms. A configurable frontend page allows the subscription or unsubscription to/from mailing lists for website visitors.

2 General purpose of the Alkacon OpenCms Newsletter module

The module extends a basic OpenCms installation with the capability to send newsletter emails to subscribers of different mailing lists. It provides the following features:

- Configurable mailing list subscription/unsubscription page for website users which can be combined with an existing OpenCms JSP template

- Editable newsletter content that can be sent to different mailing lists

- Management of different newsletter units for organizational units containing their own mailing lists and subscribers in the OpenCms Administration view

- Configurable scheduled job to clean up subscribed email addresses which were not confirmed within a configurable time range

- Possibility to extend the module to send newsletters based on an own implementation using another structured XML content

3 Installation

Note: To use the Alkacon OpenCms newsletter module, you need OpenCms version 7.5.0. The module is not compatible with older OpenCms versions.

Note: OpenCms version 7.0.5 and 7.0.4 is compatible with Alkacon OpenCms newsletter module version 1.0.1 (available here: http://www.alkacon.com/downloads/alkacon/Alkacon_OAMP_Newsletter_1.0.1.zip).

It requires the latest installation of the Alkacon OpenCms Commons module **com.alkacon.opencms.commons**, which is also part of the distribution zip file. That module contains basic functionality which is required by most Alkacon OpenCms modules.

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 OpenCms newsletter module zip file **com.alkacon.opencms.newsletter_1.0.x.zip** to import, if not already installed, import the **com.alkacon.opencms.commons_1.0.x.zip** module first

4. Check if the Jar file **com.alkacon.opencms.newsletter.jar** has been deployed in the **WEB-INF/lib/** folder after installation

5. Edit the OpenCms configuration file **WEB-INF/config/opencms-vfs.xml**. Insert the following line as subnode of the node **<widgets>** near the end of the file:
    <widget class="com.alkacon.opencms.newsletter.CmsMailinglistWidget" alias="MailinglistWidget"/>

6. Restart your servlet container afterwards

3.1   Configuration

The newsletter module can be used out of the box; usually there is no additional configuration necessary.

3.1.1   Basic configuration options

The module can be configured with the following optional module parameters:

- **project_name**: the name of an offline project which is used to delete subscribers. If the parameter is not set, the module tries to use the "Offline" project of a default OpenCms installation for the operation.

- **user_password**: the password for subscribers which are created in the administration view or by using the subscription front end JSP form. If the parameter is not set, the module uses the default password "Uw82-Qn!" for new created subscribers.

3.1.2   Advanced configuration options

If a different newsletter content type should be used to send newsletters, the class generating the newsletter email must be configured using the following module parameter:

- **class_maildata**: the fully qualified name of the class generating the newsletter email and the recipients of the newsletter from a structured XML content resource. Usually setting this parameter is not necessary. Have a look at section 5.1 for more details about this.

4   Module usage

Before the newsletter module can be properly used, at least one new newsletter unit has to be created. A newsletter unit consists of one or more mailings lists and their subscribers. One or more newsletter units can be created for each organizational unit of an OpenCms installation.

- Go to the OpenCms Administration view and click "Account Management"

- If you have set up several organizational units (OUs) in OpenCms before, you will see a list of OUs and have to select an organizational unit for which a newsletter subunit should be created. If you never set up OUs befor the root organizational unit in a basic OpenCms installation will be used and nothing has to be selected

- Create a new newsletter unit in the "Organizational Unit Management" by clicking on "New newsletter unit". All newsletter units automatically have the name prefix "nl_" added to their name

- Reload the OpenCms workplace

- A new icon "Newsletter Management" tool is now visible in the Administration view for

Account managers of the newsletter unit

- You should create at least one mailing list using the "Newsletter Management"

Note: Only users which have the role "Account manager" in this unit are able to view and use the "Newsletter Management" administration features.

The complete configuration part of the mailing lists and their subscribers as well as sending the newsletter emails has to be done in the OpenCms Newsletter Management tool in the Administration view.

Mailing lists can be created, edited and removed, subscribers can be imported or assigned to different mailing lists. Newsletter contents can be edited, published and sent to mailing lists.
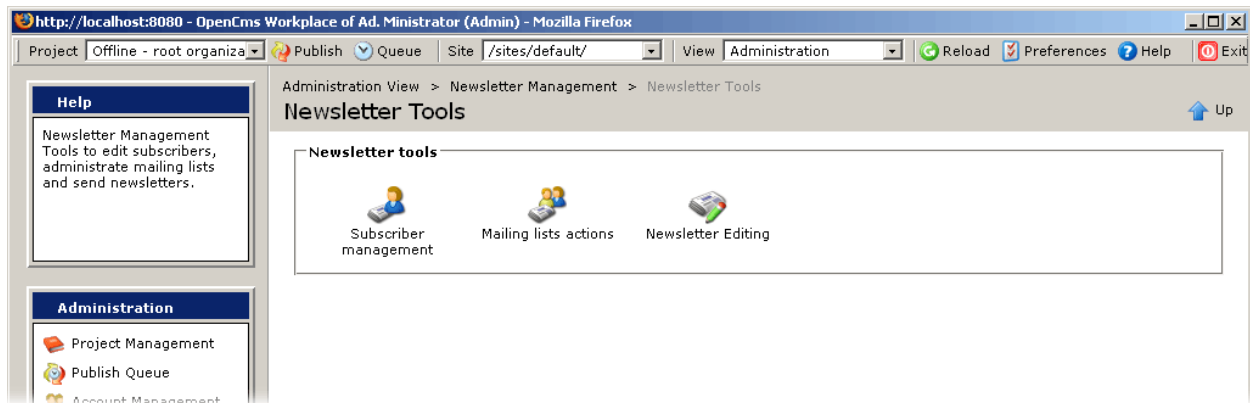

Image 1: Newsletter Management with subscriber management, mailing list actions and newsletter editing options

Note: The initial creation of newsletter contents has to be done in the OpenCms Explorer view.

Note: You can only send a newsletter if you are not in the online project.

4.1 Resource types

The module provides three structured content resource types: for the subscription front end and for the newsletter content to send. These resources can be created by using the "New" wizard, selecting "Structured content" and clicking on "Continue".

The available resource types to use are:

- **Alkacon newsletter (alkacon-newsletter)**: the newsletter contents which can be sent to mailing list subscribers.
  Important: be sure to publish any modifications of these files, because only published and unchanged newsletter contents can be sent to mailing lists in the Newsletter Management. They can be placed anywhere inside a site structure.

- **Alkacon newsletter subscription (alkacon-nl-subscribe)**: the configurable subscription form front end. This page can be placed in your website structure. Be sure that you select the mailing list where the users can be subscribed to or unsubscribed from by editing this structured XML content. Allows the configuration of all subscription texts and confirmation messages by editing the file as well as configuring the confirmation email layout and texts.

- **Alkacon newsletter mail configuration (alkacon-nl-mailconf)**: optional configuration file for the HTML email configuration that can be referenced in the newsletter structured contents as well as in the subscription front end page. This allows you to configure your

HTML email layout once and reuse the configuration for each generated email.

4.1.1   Using your own template for the subscription page

The module provides the structured XML content "alkacon-nl-subscribe" to configure a subscription/unsubscription form. You can make this form use your own JSP template, if your template is divided properly into element sections named "head" and "foot". Therefore you have to set the "template" property value on the XML content resource itself or on a parent folder to the absolute path of the template JSP you want to apply.

Image 2: Subscription form using a template, with JSP side element shown

Additionally, you have to adjust the form layout by using some CSS style classes in your template.

- **Option 1**: use the provided default CSS
  You can include the CSS shipped with the module in your template HTML **<head>** section e.g. like this:
  ```
  <link
  href="<cms:link>/system/modules/com.alkacon.opencms.newsletter/resource
  s/style.css</cms:link>" rel="stylesheet/" />
  ```

- **Option 2**: format the subscription form using your own styles
  In order to do this, you have to define some classes in your template CSS, have a look at the file
  /system/modules/com.alkacon.opencms.newsletter/resources/style.css to check which CSS classes you have to define, e.g. "form.newslettersubscription-form".

4.1.2   Including the subscription JSP side element in a template

The module also provides a JSP side element that can be used to show a subscription form in a side area of a template. This JSP element can be included using the **<cms:include>** tag. It submits the form to a subscription form front end page. The path information must be passed as request parameter value of the parameter "file" to the included JSP element, e.g.:

```
<cms:include
file="/system/modules/com.alkacon.opencms.newsletter/elements/subscribe-
form.jsp">
  <cms:param name="file">${abs. path to subscription resource}</cms:param>
</cms:include>
```

The passed absolute path must not be substituted by using the **<cms:link>** tag.

5 Using the module API

All classes used to generate the front end views, to send the emails and for the subscription/unsubscription functions are part of the package `com.alkacon.opencms.newsletter`.

It contains the following classes:

- **CmsMailingListSelectionList**:used by the mailing list selection popup dialog called from the mailing list widget

- **CmsMailingListWidget**: generates the mailing list selection widget to be used in the structured XML content editor

- **CmsNewsletterMail**: thread that sends newsletter emails to mailing list subscribers

- **CmsNewsletterManager**: provides methods to manage the subscribers for a mailing list, to get all configured newsletter units for the Administration view and to get the initialized mail data class instance (I_CmsNewsletterMailData) to use for sending newsletter emails

- **CmsNewsletterSubscriberCleanupJob**: scheduled job that can be configured in the Scheduled Jobs Management to clean up unconfirmed subscribers

- **CmsNewletterSubscriptionBean**: JSP bean providing methods for the subscription and unsubscription process

- **CmsNewsletterXmlContentHandler**: special handler that does not replace the unfound macros in default values for structured XML contents

- **I_CmsNewsletterMailData**: interface to generate newsletter emails and the list of email recipients by using a structured XML content

- **A_CmsNewsletterMailData**: abstract implementation of the mail data interface, with some methods already implemented, e.g. generating the list of recipients

- **CmsNewsletterMailData**: simple extension of the abstract mail data implementation, used as default to generate newsletter emails from the structured XML content shipped with the newsletter module

- **Messages**: convenience class to access the localized messages of the newsletter package

The classes of the sub package `com.alkacon.opencms.newsletter.admin` are used by the "Newsletter Management" tool in the Administration view of OpenCms and not described in detail.

5.1 Configuring another newsletter content to be used by the module

If the newsletter to send should be of another structured XML content type, a class implementing the interface `I_CmsNewsletterMailData` has to be written. The abstract class `A_CmsNewsletterMailData` can be used and extended for this purpose, it already implements some basic methods of the interface. It also provides methods to access the current user's context (`org.opencms.file.CmsObject`), the currently used XML content resource (`org.opencms.xml.content.CmsXmlContent`) and the mailing list

(`org.opencms.file.CmsGroup`) to send the newsletter email to.

The following abstract methods have to be implemented in the mail data class:

- **getEmail()**: returns the generated email object with all fields (from, subject, message) set except the email recipients, usually the email contents are generated from the underlying XML content

- **getEmailContentPreview()**: returns the email preview String for the preview JSP when clicking on a newsletter resource in the Explorer view of OpenCms

- **getResourceTypeName()**: returns the resource type name of the structured XML content resource which is used for generating the newsletter emails

The newsletter XML content resource type can use the following JSP when clicked (i.e. the file specified in the "template-elements" property):

`/system/modules/com.alkacon.opencms.newsletter/pages/detail-newsletter.jsp`

It should contain the element nodes **`<From>`**, **`<BCC>`** and **`<Subject>`** in order to make the above mentioned preview JSP work properly.

The following XML nodes can be taken as an example to configure a resource type for a new newsletter XML content resource type in an OpenCms module by editing the OpenCms configuration file **`opencms-modules.xml`**:

```
<resourcetypes>
  <type class="org.opencms.file.types.CmsResourceTypeXmlContent"
name="mynewsletter" id="xyz">
    <properties>
      <property>
        <name>template-elements</name>
        <value
type="shared"><![CDATA[/system/modules/com.alkacon.opencms.newsletter/pages/
detail-newsletter.jsp]]></value>
      </property>
    </properties>
    <param
name="schema">/system/modules/com.my.newsletter/schemas/newsletter_mail.xsd
    </param>
  </type>
</resourcetypes>
<explorertypes>
  <explorertype name="mynewsletter" key="fileicon.mynewsletter"
icon="mynewsletter.png" reference="xmlcontent">
    <newresource page="structurecontent"
uri="newresource_xmlcontent.jsp?newresourcetype=mynewsletter" order="66" />
  </explorertype>
</explorertypes>
```

Note: Be sure to insert a unique resource type name and a unique resource type id before inserting the nodes in a module configuration and to make a backup of a working configuration file before changing anything.

5.2   Configuring a scheduled job to delete unconfirmed subscribers

To delete unconfirmed subscribers from the system, a scheduled job can be configured.

Image 3: Scheduled job configuration

The Java class to use for the scheduled job is
com.alkacon.opencms.newsletter.CmsNewsletterSubscriberCleanupJob. Be sure
to run the job in an offline project, otherwise the subscriber deletion will not work properly. The
job can be configured with the following parameter:

- **maxage**: specifies the maximum age (in hours) subscribers can be unconfirmed before
  they are removed from the system

Note: If the parameter is not set, a default value of 168 hours (7 days) is used.