OpenCms Days 2011

Workshop Track:

The OpenCms 8 Content Subscription Engine

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Agenda

- Introduction
  - Basic concepts
  - Demonstration
- Using subscriptions
  - The <cms:usertracking> tag
  - Using collectors
- Using visits
  - Tracking user visits
  - Handling binary files
- Further topics
  - Configuration
  - Preventing browser caching
  - The Java API

Basic concepts (1)

- The content subscription engine provides two main features:
  - Subscriptions
  - Visit tracking
- How these features are used is not prescribed by the subscription engine
- They are tools used by the template developer to add subscription features to their sites
- Can be used independently from each other
- Subscription/visit data is stored in new tables in the database

Basic concepts (2)

- Subscriptions
  - Association between OpenCms users and individual VFS resources
  - Also possible for groups
  - Can be read or written using JSP tags and content collectors
- Use case: Web site personalization
  - Users can subscribe to their favorite contents
  - The user's subscribed contents are displayed in a side bar
- Use case: Notifications
  - Administrator subscribe users to contents which they should read

Basic concepts (3)

- Visits
  - With the subscription engine, visits of a resource by users can be recorded
  - Only last visit of a user is tracked for each resource
  - Visit data can be accessed via JSP tag and collectors, too
- Use case: Displaying list of resources which have changed since the last visit
- Use case: Displaying different information depending on whether the user is visiting the page for the first time or not

Basic concepts (4)

- The subscription engine can be either used with ADE or with the classic OpenCms template mechanism
- Template/Formatter JSPs need to be adapted to use subscriptions or visits
- It’s up to the template developer to decide what they use subscriptions for
- Subscriptions and visits work on the level of resources, not pages or URLs

Demonstration

DEMO

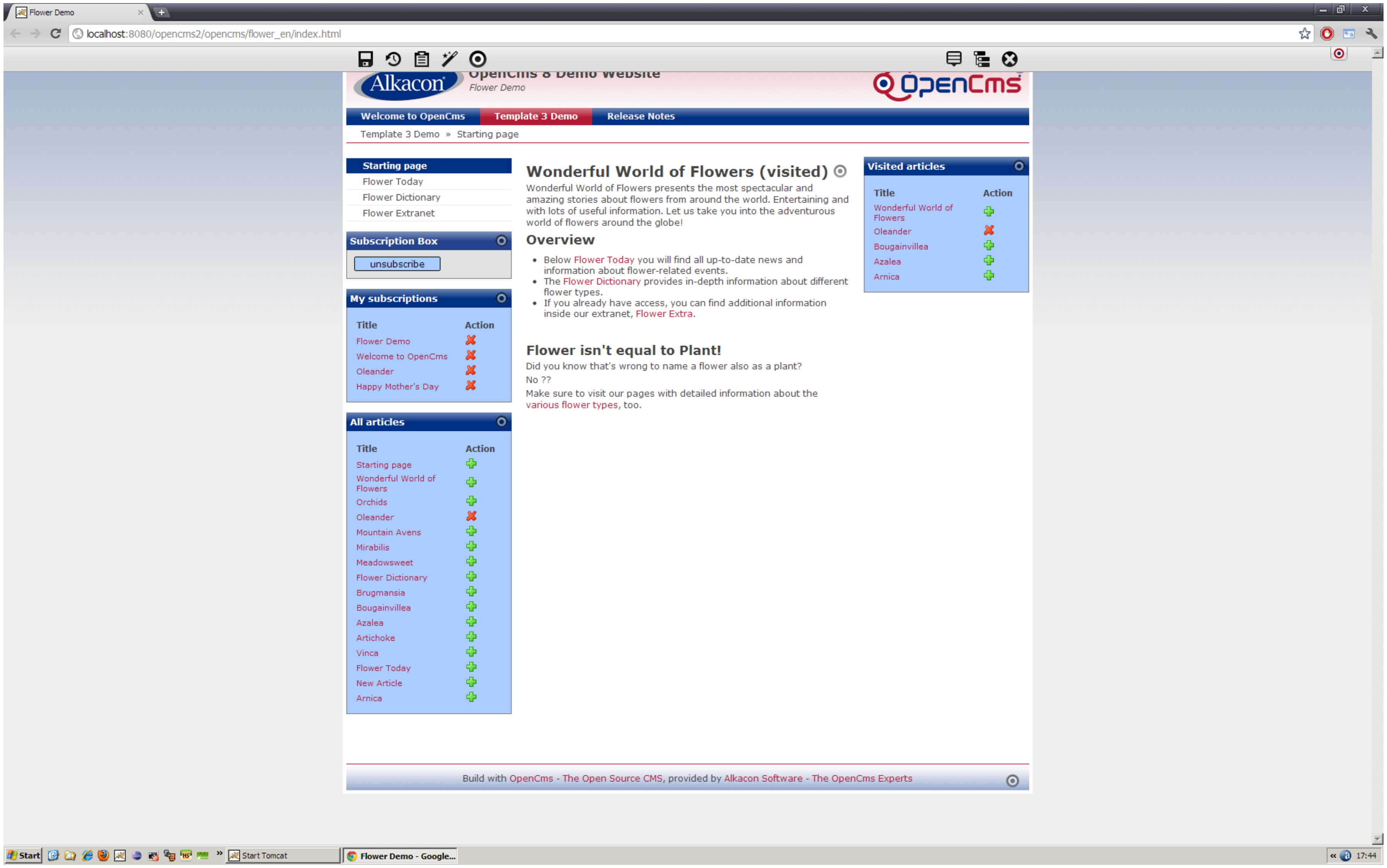
Demo

- Live Demo

Demo

Demo

Demonstration



localhost:8080/opencms2/opencms/flower_en/index.html

OpenCms 8 Demo Website
Flower Demo

Welcome to OpenCms | Template 3 Demo | Release Notes

Template 3 Demo » Starting page

Subscription Box

My subscriptions

Title	Action
Flower Demo	✗
Welcome to OpenCms	✗
Oleander	✗
Happy Mother's Day	✗

All articles

Title	Action
Starting page	+
Wonderful World of Flowers	+
Orchids	+
Oleander	✗
Mountain Avens	+
Mirabilis	+
Meadowsweet	+
Flower Dictionary	+
Brugmansia	+
Bougainvillea	+
Azalea	+
Artichoke	+
Vinca	+
Flower Today	+
New Article	+
Arnica	+

Wonderful World of Flowers (visited)

Wonderful World of Flowers presents the most spectacular and amazing stories about flowers from around the world. Entertaining and with lots of useful information. Let us take you into the adventurous world of flowers around the globe!

Overview

- Below Flower Today you will find all up-to-date news and information about flower-related events.
- The Flower Dictionary provides in-depth information about different flower types.
- If you already have access, you can find additional information inside our extranet, Flower Extra.

Flower isn't equal to Plant!

Did you know that's wrong to name a flower also as a plant?

No ??

Make sure to visit our pages with detailed information about the various flower types, too.

Visited articles

Title	Action
Wonderful World of Flowers	+
Oleander	✗
Bougainvillea	+
Azalea	+
Arnica	+

Build with OpenCms - The Open Source CMS, provided by Alkacon Software - The OpenCms Experts

The <cms:usertracking> tag (1)

- New tag: <cms:usertracking>
  - Multi-function tag which can perform different actions
  - Used for both subscriptions and user tracking
  - Possible operations for subscriptions:
    - Subscribe user to resource
    - Unsubscribe user from resource
    - Check if a resource is subscribed to a user

The <cms:usertracking> tag (2)

- Example for subscribing/unsubscribing to files:

  -
    ```
    <c:if test="${not empty param.action}">
    <c:choose>
      <c:when test="${param.action == 'subscribe'}">
                 <cms:usertracking action="subscribe"
                                          file="${param.file}" />
      </c:when>
      <c:when test="${param.action == 'unsubscribe'}">
                 <cms:usertracking action="unsubscribe"
                                          file="${param.file}" />
      </c:when>
    </c:choose>
    </c:if>
    ```

The <cms:usertracking> tag (3)

- Subscription for another user:
  - <cms:usertracking file="…" action="subscribe" user="${username}"/>
  - Possible use case: Admin wants a specific user to see a certain content in his subscriptions

The <cms:usertracking> tag (4)

- Checking for a subscription:

  -
    ```
    <c:set var="subscribed">
       <cms:usertracking action="checksubscribed"
                         currentuser="true"
                         file="${sitepath}"/>
    </c:set>
    ```
  - The tag will be evaluated to ‘true’ or ‘false’

- Checking for subscription of a specific user:

  -
    ```
    <c:set var="subscribed">
       <cms:usertracking action="checksubscribed"
                         username=“${username}”
                         file="${sitepath}"/>
    </c:set>
    ```

Using collectors (1)

- The <cms:usertracking> tag is used for operations on a single file
- Use the OpenCms content collector mechanism for accessing lists of contents
- New content collector: allSubscribed
  - Used to collect subscribed resources
  - Java class: org.opencms.file.collectors.CmsSubscriptionCollector
- Parameters are given as a '|'-separated list of key=value pairs

Using collectors (2)

- Configurable using various parameters, e.g.
  - resource: parent folder
  - includesubfolders: indicates whether subfolders should be searched
  - user: the user for which the subscribed resources should be fetched
  - currentuser: if true, gets subscribed resources for the current user

Using collectors (3)

- Example: Collecting all subscribed resources for the current user in the current site

-
  ```
  <cms:resourceload collector="allSubscribed“ param=
  "resource=/|currentuser=true|includesubfolders=true|mode=all">
      <cms:resourceaccess var="item" />
      <div>${item.filename}</div>
  </cms:resourceload>
  ```

- Parameter “mode” has three possible values:
  - all: find subscribed resources
  - unvisited: finds subscribed resources unvisited since last change
  - visited: finds subscribed resources visited since last change

Using collectors (4)

-
  ```
  <cms:resourceload collector="allSubscribed‟ param=
  "resource=/|currentuser=true|includesubfolders=true|mode=all">
        <cms:resourceaccess var="item" />
        <div>${item.filename}</div>
  </cms:resourceload>
  ```

- New tags <cms:resourceload>, <cms:resourceaccess>
- Like <cms:contentload> and <cms:contentaccess>, but only load resource information, not contents
- Needed because resources which aren’t normal XML contents can be subscribed
- Faster, too, if you only need e.g. the title property or resource name – does not need to parse XML files
- ${item} is a Java bean of type org.opencms.jsp.util.CmsJspResourceAccessBean

Tracking user visits (1)

- User tracking functionality:
  - Marking a page as visited by a given user
  - Checking whether a user has visited a page
  - Finding visited resources
- Done via the <cms:usertracking> tag and content collectors
  - Special handling for binary files needed

Tracking user visits (2)

- Example: Mark a resource as visited by the current user

```
<cms:usertracking action="visit" file="${filepath}"/>
```

- Example: Mark visit by a specific user

```
<cms:usertracking action="visit" user="User" file="${filepath}" />
```

- Example: Check if a user has visited a resource

```
<cms:usertracking action="checkvisited" currentuser="true"
   file="${filepath}" />
```

  - Will evaluate to 'true' or 'false'

Tracking user visits (3)

- New collector: allVisited
  - Java class: org.opencms.file.collectors.CmsSubscriptionCollector
- Collects visited resources, filtered by user, folder and time range
- Visited resources for current user:
  - currentuser=true
- Visited resources for user Username:
  - user=Username

Tracking user visits (4)

- Selecting by time range:
  - Parameters: daysfrom, daysto
  - Values: Range of days back from the current time for which the visited resources should be returned
  - Example: Resources visited by the current user in the last two days
    - daysfrom=2|daysto=0|currentuser=true

Tracking user visits (5)

- Selecting by folder:
  - resource=/folder/
- Selecting by folder or subfolders:
  - resource=/folder/|includesubfolders=true

Handling binary files (1)

- This works only for structured contents
- Special resource init handler for binary files
- Intercepts direct requests to resources and marks them as visited
- Must be configured in opencms-system.xml:

```
<resourceinit>
    …….
   <resourceinithandler class=
    “org.opencms.db.CmsUserTrackingResourceHandler“/>

</resourceinit>
```

Handling binary files (2)

- Will mark certain files as visited by a user if their URL is requested by them
- You also have to set the export property to false so that the files will not be statically exported
- Controlled by the property usertracking.mark
- Values:
  - online: opened resources will only be marked as visited in the Online project
  - true: opened resources will always be marked
  - false (or not set): resources will not be marked

Handling binary files (3)

- Why not do this for all files?
  - Rendered pages consist of multiple resources
  - Especially now with Advanced Direct Edit (container pages containing multiple elements)
  - The resource which is directly requested is not necessarily the resource which should be marked as visited
  - The <cms:usertracking> tag gives the template developer more control than the resource init handler

Configuration

- Add entry to opencms-system.xml:
  - <subscriptionmanager enabled="true" poolname="default" maxvisited="500" />
  - Add it as the last sub-element of the <system> element
- enabled: enables or disables the subscription engine
- maxvisited: the maximum number of visited resources stored for a given resource
- poolname: the database pool used to access the subscription information
  - Important when using a cluster, because data should be stored in a central location

Preventing browser caching

- Subscriptions/visits will not work correctly if the user‘s browser caches pages on which the <cms:usertracking> tag or collectors are used

- Insert <cms:nocache> JSP tag into main template JSP before any output is written:

```
<%@page buffer="none" session="false"
  taglibs="c,cms,fn" %><cms:nocache/>
```

- This will tell the browser to not cache pages

The Java API (1)

- Everything you can do with the collectors or tags, you can do with the Java API
- org.opencms.db.CmsSubscriptionManager
- Access via org.opencms.main.OpenCms
- Example: reading all subscribed resources for a user

```
CmsObject cms = …;
CmsUser user = …;
List<CmsResource> resources = OpenCms.getSubscriptionManager().
    readAllSubscribedResources(cms, user);
```

The Java API (2)

- Also offers some additional functionality

- Example: reading the last visit date

```
CmsObject cms = …;
CmsUser user = …;
CmsResource resource = …;
long lastVisited = OpenCms.getSubscriptionManager()
    .getDateLastVisitedBy(cms, user, resource);
```

Questions

QUESTIONS ?

Fragen?

- Any Questions?

¿Preguntas?

Questiones?

Thank you very much for your attention

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http://www.alkacon.com
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