

Advanced Usage of Multi Site Functionality

by

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About Us...

- **Clicks and Links**
 - UK based IT consultancy
 - Specialised in innovation (Second Life) and Open Source software
 - The oldest UK based OpenCms solution provider, since OpenCms version 4
 - Released many OpenCms Open Source modules and fixes over the years
 - Contributions to OpenCms Wiki
- **Olli Aro**
 - Involved in OpenCms project, since 2001
 - Active member of OpenCms community
 - Reviewer for all published OpenCms books



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Why should we get excited...



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... about Multi Site Functionality

- **Single platform to maintain**
- **Single platform to backup**
- **Reduced hardware**
- **Possibility to share functionality between sites**
- **Better for environment**
- **Reduced project costs → more competitive pricing**



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Real Life Show Cases



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Our Hosted OpenCms Platform

- Hosted OpenCms platform for small to medium scale website projects
- Option to choose between a generic configurable template or completely bespoke website functionality
- Identical functionality available compared to dedicated OpenCms installations
- More attractive project costs
- More competitive hosting and support costs
- Always up to date



www.clicksandlinks.com



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OnCampus UK

- Provides websites for over 300 student unions in the UK
- Websites are free to the unions, hence the project and ongoing costs are critical
- Same functionality, individual look and feel
- Fast site roll out, 5 sites per day
- Bespoke functionality and integration





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Multi Site Infrastructure



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Web Server
(Virtual Hosts)

Application Server
(OpenCms application)

Database Server
(Dynamic data storage)

File System
(Static data storage)



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Web Server Configuration



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Virtual Host Configuration

```
<VirtualHost *:80>  
    ServerName www.site1.com  
    ServerAdmin systemadmin@clicksandlinks.com  
    ErrorLog /usr/local/apache/logs/www.site1.com-error_log  
    CustomLog /usr/local/apache/logs/www.site1.com-access_log combined  
  
    JkMount /opencms/* ajp13w  
  
</VirtualHost>
```



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Rewrite Rules & Static Content

```
<VirtualHost *:80>
    ServerName www.site1.com
    ServerAdmin systemadmin@clicksandlinks.com
    ErrorLog logs/www.site1.com-error_log
    CustomLog logs/www.site1.com-access_log combined

    RewriteEngine on
    RewriteLog logs/www.site1.com-rewrite_log
    RewriteLogLevel 0

    Alias /static_files "/usr/local/tomcat/webapps/opencms/export"
    RewriteRule ^/download/(.*)$ /static_files/download/$1 [PT]
    RewriteRule ^/pics/(.*)$ /static_files/pics/$1 [PT]

    JkMount /opencms/* ajp13w

</VirtualHost>
```



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OpenCms Configuration



Application Configurations

- **opencms-system.xml**

```
...  
<sites>  
  <workplace-server>http://opencms.clicksandlinks.com</workplace-server>  
  <default-uri>/sites/default/</default-uri>  
  <site server="http://opencms.clicksandlinks.com" uri="/sites/default/">  
  <site server="http://www.site1.com" uri="/sites/site1/">  
  <site server="http://www.site2.com" uri="/sites/site2/">  
  <site server="http://www.site3.com" uri="/sites/site3/">  
  <site server="http://www.site4.com" uri="/sites/site4/">  
  ...  
</sites>  
...
```



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User Management & Access Permissions

- **Site specific organisation unit**
- **Remove default Users group permissions from /sites folder (excluding read permission)**
- **Give permissions for each /sites/site1 folder for the Users group in that organisational unit**
- **Remove default Users group permissions from /system/galleries folder**
- **Give permissions for each /system/galleries/... folder for the User group in that organisation unit**



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Search Management

- **Create a dedicated search index for each site**
- **Make sure that your search page utilises the correct index**



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Template Configuration



Single Master Template Approach

- **Template drop down is confusing → Risk of users selecting a wrong template → a support ticket**
- **Using single master template allows you to revise your template structure in future without need to rename template properties for pages**
- **Difficult to get content types working between different sites without single master template**
- **Ways to implement:-**
 - **Select the sub template dynamically e.g. based on URL pattern**
 - **Configurable template based on XML configuration file**



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Dynamic Master Template

```
...  
if (DOMAIN_NAME.equals("www.site1.com")  
    cms.include("/system/modules/site1/templates/contenttemplate.jsp");  
else if (DOMAIN_NAME.equals("www.site2.com")  
    cms.include("/system/modules/site2/templates/contenttemplate.jsp");  
else if (DOMAIN_NAME.equals("www.site3.com")  
    cms.include("/system/modules/site3/templates/contenttemplate.jsp");  
...
```



Configurable Master Template

Language English

Site Name: Peover Superior (E.C.) Primary School

CSS Location: /system/modules/com.clicksandlinks.opencms.sites.schools.peoversuperior/css/

Rotator CSS Location: /system/modules/com.clicksandlinks.opencms.sites.schools.peoversuperior/css/rotators/

Achievement Badge [1]:
Badge Title: School Achievement Award 2003
Badge Link: http://www.teachernet.gov.uk/educationoverview/events/eventsarchi
Badge Image: /system/modules/com.clicksandlinks.opencms.sites.schools.peoversu

Achievement Badge [2]:
Badge Title: Sport England
Badge Link: http://www.sportengland.org/
Badge Image: /system/modules/com.clicksandlinks.opencms.sites.schools.peoversu

Google Analytics Id: UA-1555170-1

Disable Text Resize:

Bottom Bar Disclaimer: (Click on the "New" button on the right side to activate this element)



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Content Types & JSP Injection

Peover Superior E.C. PRIMARY SCHOOL Text Size [T T T T]

Comic Relief 2007

Site Search

Main Site links

- Home Page
- About Us
- Ofsted 2006
- Information for parents
- Class 2
- Comic Relief Day
 - Comic Relief
- Children's Page
- Sport
- Gardening Club
- Prospective Parents
- School Profile
- Photo Gallery
- Contact Details

You are here: [Home](#) [Comic Relief Day](#)

The school took part in the Comic Relief appeal on March 16th 2007.

The children were invited to come dressed as extravagantly as they wished in return for a donation to Comic Relief. A competition was also held for the most imaginative. Who would you choose?

We have collected a total of £86.62 for Comic Relief.

See below for photos of the children.



Peover Superior E.C. PRIMARY SCHOOL Text Size [T T T T]

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Ofsted 2006
January 3, 2007; editor peoversuperior

Overall effectiveness of the school

This is a good school with outstanding features. It is a school where children are happy and achieve well. Parents are keenly aware of this. Many expressed their appreciation of the staff and the headteacher, how they have supported their children, who, as a result, have flourished and grown in confidence and maturity. The headteacher provides excellent leadership for the school. His belief in the educational and life-long benefits of sport and music has determined the direction in which the school has developed. In sport and music the school is remarkably successful, and the attitudes and confidence children develop on the playing field and through their music, have a significant, positive impact on their learning in other subjects.

The standards children reach at Year 2 and 6 each year depend very much on the individual abilities of the small number of children in each year group. Occasionally, they are broadly average, but more often they are well above average. In all years, children achieve well and make good progress. Teaching is good. The teachers are committed to the children. Children feel safe. Teachers know each child very well, they know their strengths and weaknesses, and how to draw the best out of them.

The very good relationships between staff and children contribute significantly to the children's outstanding personal development and to the school's welcoming family feel: _ _ _ _ _

For more information please click on the link or attachment.

Attachments: [Ofsted 2006](#)

Links:

- [Peover Superior \(EC\) Primary School Ofsted 2006](#)



Opencms-modules.xml

```
...
<type class="org.opencms.file.types.CmsResourceTypeXmlContent" name="rsspage" id="151">
  <properties>
    <property>
      <name>template-elements</name>
      <value type="shared"><![CDATA[/system/modules/com.clicksandlinks.opencms.rss/pages/
        rsspage_empty.jsp]]></value>
    </property>
    <property>
      <name>template</name>
      <value type="shared"><![CDATA[/system/modules/com.clicksandlinks.opencms.sites.generic/
        templates/contentTemplate.jsp]]></value>
    </property>
    <property>
      <name>body-template</name>
      <value type="shared"><![CDATA[/system/modules/com.clicksandlinks.opencms.rss/
        pages/rsspage.jsp]]></value>
    </property>
  </properties>
  <param name="schema">/system/modules/com.clicksandlinks.opencms.rss/schema/rsspage.xsd</param>
</type>
...
```




rsspage_empty.jsp

```
<%@ taglib prefix="cms" uri="http://www.opencms.org/taglib/cms" %>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>
<c:set var="temp_template"><cms:property name="template"/></c:set>
<c:if test="${!empty temp_template}">
    <cms:include><c:out value="${temp_template}" /></cms:include>
</c:if>
```

pagebody.jsp

```
<%@ taglib prefix="cms" uri="http://www.opencms.org/taglib/cms" %>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>
<c:set var="temp_body_template"><cms:property name="body-template"/></c:set>
<c:if test="${!empty temp_body_template}">
    <cms:include><c:out value="${temp_body_template}" /></cms:include>
</c:if>
<c:if test="${empty temp_body_template}">
    <cms:include element="body" editable="true" />
</c:if>
```



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Questions?

Thank you

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