The Navigation Framework

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1. Introduction

To goal of the navigation framework is to

- simplify and standardize the generation of navigation widgets like menubars, tabs, breadcrumb paths.

With the approach that is presented here it shall be possible to

- use pre-defined XHTML navigation components and present them with a custom CSS,
- override these components in a publication whereby the logic can be reused, and
- create and integrate new publication-specific navigation components using the same scheme.

2. Architecture

The navigation framework consists of the following components:

`/lenya/navigation.xmap`
The sitemap where the navigation components are loaded.
`/lenya/xslt/navigation/*.xsl`
The default navigation components that are shipped with Lenya.
`/lenya/pubs/lenya/xslt/navigation/*.xsl`
Custom navigation components of the publication.

3. Using the Navigation Framework

3.1. Loading a Navigation Component

You can load a navigation component from the following URI:

```
cocoon://navigation/<pub-id>/<component>/<path>.xml
```

The URI steps are:

`<pub-id>`
The publicaton ID.
`<component>`
The navigation component to load (tabs, menu, etc.).
`<path>`
The navigation path. It is a concatenation of the `href` attributes of the sitetree nodes that lead to the current node, e.g. `demo/oscom.html` for the sitetree fragment

```
<site xmlns="http://apache.org/cocoon/lenya/sitetree/1.0">
  <node href="demo/" label="Demo">
    <node href="oscom.html" label="OSCOM"/>
    ...
  </node>
  ...
</site>
```

3.2. Aggregating the Navigation Components

The basic principle is shown in the following figure:

In the publication sitemap (`lenya/pubs/<pub-id>/sitemap.xmap`) the navigation components are aggregated. Here you decide which components you want to use:

```
    <map:pipeline>
      <map:match pattern="navigation/**.html">
(1)       <map:aggregate element="page" prefix="page"
              ns="http://apache.org/cocoon/lenya/cms-page/1.0">

(2)         <map:part src="cocoon://navigation/
                {publication-id}/breadcrumb/{../1}.html.xml"/>

(3)         <map:part src="cocoon://navigation/
                {publication-id}/tabs/{../1}.html.xml"/>

(4)         <map:part src="cocoon://navigation/
                {publication-id}/menu/{../1}.html.xml"/>

          </map:aggregate>

(5)       <map:transform src="xslt/page2xhtml.xsl">
(6)         <map:parameter name="root"
                value="{context}/{publication-id}/"/>
          </map:transform>

(7)     <map:serialize type="xhtml"/>

      </map:match>
    </map:pipeline>
```

1. The navigation elements are aggregated together with other document parts.
2. Load the breadcrumb XHTML fragment.
3. Load the tabs XHTML fragment.
4. Load the menu XHTML fragment.
5. Create the XHTML page.
6. The stylesheet can use this parameter to generate absolute URLs.
7. Finally, serialize the page as XHTML.

4. Developing Navigation Components

The following contracts define the development of navigation components:

- A navigation component is an XSLT stylesheet that is located at
  `lenya/xslt/navigation/<component>.xsl`
  for default components and
  `lenya/pubs/<publication-id>/lenya/xslt/<component>.xsl`
  for default components.
- The default components produce an XHTML fragment with the top level element <div class="<component>"/>.