

Basic web application development with Apache Cocoon 2.1

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Are you using Cocoon?



Agenda

- What is Cocoon?
- A bit of history
- Cocoon basics
- Demo
- Why Cocoon?
- Future of Cocoon
- Q&A



What is Cocoon all about?

- Web development framework
- Java & XML
- Separation of Concerns (SoC)
- Content transformation
- Dynamic multi-channel publishing
- Inter-operability with other Java projects (Lucene, FOP, Spring, Hibernate, etc.)



History

- Cocoon 1
 - Started in Jan. 1999 by Stefano Mazzocchi
 - Simple servlet for XSL styling of XML
- Cocoon 2
 - Rewrite for performance and scalability
 - More than just XSL transformations



Connectivity

Collect data from multiple resources

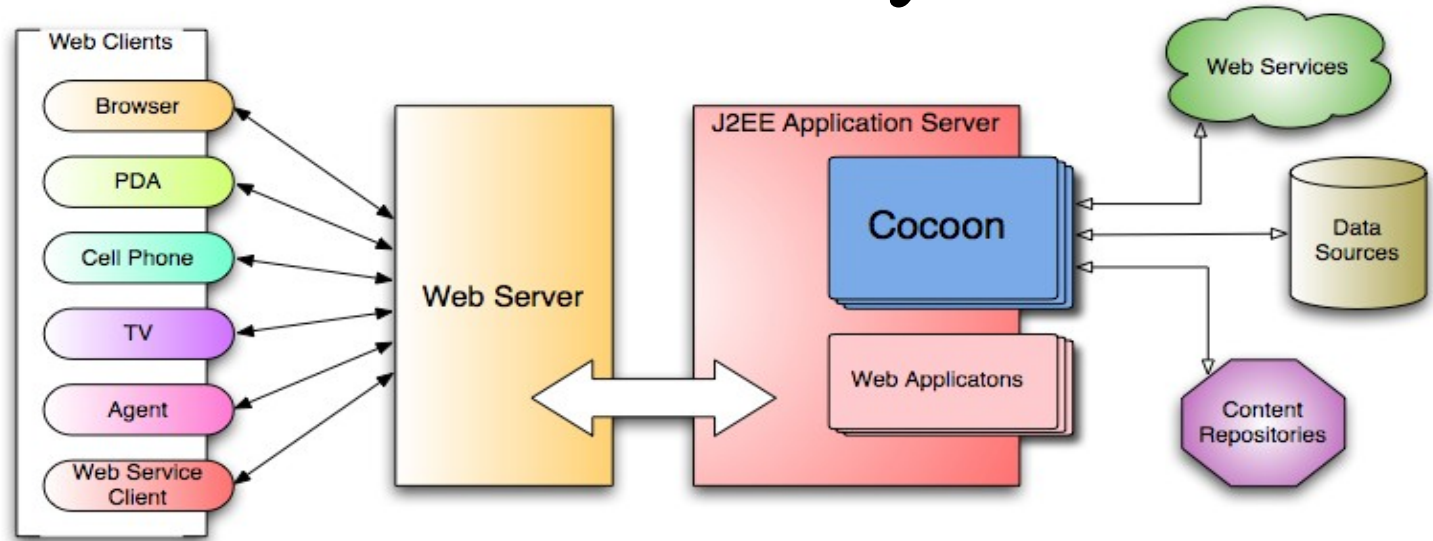
- Filesystem
- SOAP webservice
- LDAP
- Databases (XML, SQL, Object)
- WebDAV
- XML feed

If that's not enough, use your current code in Cocoon from

- JSF
- JSP



Connectivity



Cocoon basics

- Sitemap
- Forms framework
- Flow
- Caching



Sitemap

- XML configuration file
- Request handling
- Where everything comes together



Sitemap components

- Pipelines
- Matchers
- Generators
- Transformers
- Serializers
- Readers

```
<map:sitemap>  
  <map:components>  
    <map:pipes/>  
    <map:matchers/>  
    <map:generators/>  
    <map:transformers/>  
    <map:serializers/>  
    <map:readers/>  
  </map:components>  
</map:sitemap>
```

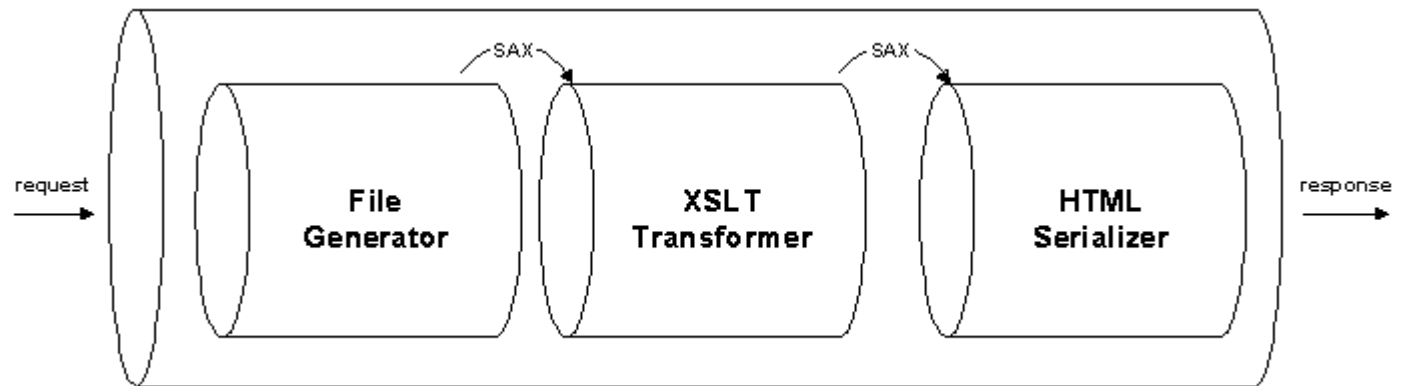




Pipelines

- Contain matchers for (requested) URI

Example



Pipeline example

```
<map:pipeline>  
  <map:match pattern="body-**.html">  
    <map:generate type="file" src="{1}.xml"/>  
    <map:transform type="xslt" src="doc2html.xsl"/>  
    <map:serialize type="html"/>  
  </map:match>  
</map:pipeline>
```



Cocoon Forms framework

- Create forms
- Ajax / Dojo
- Model
- Template
- Binding (bean or xml)

The screenshot shows a web browser window with the address bar displaying 'http://www.duitslandweb.nl - Duitslandweb - Aanmeldformulier Pr...'. The page title is 'Aanmeldformulier Projectwijzer'. Below the title, a note states 'Met * aangeduide velden zijn verplicht.' (Fields marked with * are mandatory). The form contains several input fields: 'Titelatuur:', 'Voornaam:', 'Tussenvoegsel:', 'Achternaam:', 'E-mail:', 'Website:', and 'Looptijd:', each followed by a text box and an asterisk. Below these is a section 'Samenvatting van lopend project' with a note '(max. 100 woorden, Nederlands):' and a large text area. This is followed by 'Instelling en afdeling:', 'Verdere specialismen:', and a checkbox 'Ik ben al bekend als onderzoeker'. There is a 'Foto:' label, a text box, a 'Browse...' button, and a note '(.jpg formaat maximaal 150 pixels breed)'. Below that is a dropdown menu 'Kies uw wetenschappelijke hoofdvak:' with 'Duitse taal- en letterkunde' selected. At the bottom, there is a label 'Kies de onderzoeksvelden die betrekking hebben op uw onderzoek' and a 'Done' button. The browser's status bar at the bottom shows 'Done' and some icons.



Go with the flow

- Continuations
- Rhino (Javascript)
- JavaFlow



Caching

- Think about how you design your web application.
- Four kinds of caching
- Apache mod_cache



Demo

- Let's show some stuff!



Why Cocoon?

- Powerful multi-channel publishing
- Inter-operability
- Active community
 - 20+ active committers (60+ overall)
 - 5500 mails on userlist in 2006
 - Annual GetTogether (100+ people)



Future

- Cocoon 2.2
 - Dependency management (M2)
 - Spring-based framework
 - Modularity
- Cocoon 3?



Resources

- Website:
 - <http://cocoon.apache.org/>
- Mailinglists:
 - users@cocoon.apache.org
 - dev@cocoon.apache.org
- Wiki:
 - <http://wiki.apache.org/cocoon/>



Q&A?

- Any questions?



Latest version

<http://people.apache.org/~jreijn/apachecon.html>

- Presentation
- Demo sources

