Manakin Workshop

DSpace User Group, February 2006

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Digital Initiatives
Research & Technology

Texas A&M University
Libraries
Outline

Part I – Concepts
- Cocoon fundamentals
- Manakin’s Sitemaps
- Digital Repository Interface (DRI)

Part II – How to make a Theme
- Creating a new sitemap.xmap
- Installing the theme
- Theme tools
Cocoon Fundamentals

- Web development framework
  - SAX-based pipelines
- Components
- Pipelines
- Sitemap

http://cocoon.apache.org/
Cocoon Components

- Generators
- Transformers
- Serializers
- Matchers & Selectors
- Others...
Cocoon’s Pipeline Model

Generator

Transformer A

Transformer B

Serializer

<document>

<document>

<document>

<document>

<document>

<document>

<document>
Manakin uses a pipeline architecture composed of two parts:

- **Content Generation**
- **Style Application**

( example Aspect chain )
Aspects

- Aspects implement a set of related features
- Generate content, perform operations
- No Style
- “Chained Together” to form all the features
Aspects

Four “core” Aspects for DSpace:

- **ArtifactBrowser**
  - Browsing communities, collections, items, and bitstreams

- **E-Person**
  - Authenticating users, editing profiles, change passwords

- **Submission**
  - Ingesting new items into the repository through a workflow

- **Administrative**
  - Administering the repository, creating & modifying objects
Themes

- Stylize content into a particular look-and-feel

- May apply to a particular:
  - A Single page
  - All pages in a Collection
  - All pages in a Community

- For XHTML based themes:
  - A standard XSL is provided
  - Range in complexity
Digital Repository Interface

- Abstract representation of a DSpace page

- Metadata elements
  - METS, MODS, DIM
  - Extendable to other metadata formats

- Structural elements
  - TEI (light)
Dissecting a DSpace page

- Examining a normal DSpace page:
  - Meta information about the page
  - Available navigational options
  - The main body
Digital Repository Interface (DRI)

Native metadata formats: METS, MODS, & DIM

Based primarily upon TEI
Digital Repository Interface

- Where is DRI used?
Part II: How to make a Theme
Making a theme

- Create a new sitemap
  - Create a new sitemap.xmap
  - Add (X)HTML Transformations
  - Add Internationalization
  - Add Style (CSS & Images)

- Installing the theme
  - Create the directory
  - Install the theme

- Theme tools
Create a new sitemap

<map:sitemap xmlns:map="http://apache.org/cocoon/sitemap/1.0">
  <map:pipelines>
    <map:pipeline>
      
    </map:pipeline>
  </map:pipelines>
</map:sitemap>
<map:sitemap xmlns:map="http://apache.org/cocoon/sitemap/1.0">
  <map:pipelines>
    <map:pipeline>
      <map:match pattern="**">
        <map:generate type="file" src="cocoon://DRI/{1}"/>
        <map:transform src="../dri2xhtml.xsl"/>
        <map:serialize type="xml"/>
      </map:match>
    </map:pipeline>
  </map:pipelines>
</map:sitemap>
Add Internationalization

```xml
<map:sitemap xmlns:map="http://apache.org/cocoon/sitemap/1.0">
  <map:pipelines>
    <map:pipeline>
      <map:match pattern="**">
        <map:generate type="file" src="cocoon://DRI/{1}"/>
        <map:transform src="../dri2xhtml.xsl"/>
        <map:call resource="i18n-transformer"/>
        <map:serialize type="xml"/>
      </map:match>
    </map:pipeline>
  </map:pipelines>
</map:sitemap>
```
Add Style (CSS & Images)

<map:sitemap xmlns:map="http://apache.org/cocoon/sitemap/1.0">
  <map:pipelines>
    <map:pipeline>
      <map:match pattern="themes/**/*">
        <map:read src="{2}"/>
      </map:match>
      <map:match pattern="**">
        <map:generate type="file" src="cocoon://DRI/{1}"/>
        <map:transform src="../dri2xhtml.xsl"/>
        <map:call resource="i18n-transformer"/>
        <map:serialize type="xml"/>
      </map:match>
    </map:pipeline>
  </map:pipelines>
</map:sitemap>
Installing the new theme

- Create a new theme directory
  - [source] /xmlui/cocoon/themes/ <theme name>

- Inside the directory put:
  - sitemap.xmap
  - CSS stylesheet(s)
  - Images
  - Any static resources
Install the new theme

- Themes may be applied to:
  - A regular expression
  - A DSpace handle (Inheritable)

- Add a `<theme>` element to “xmlui.xml” configuration
  - Some examples:

  `<theme name="My Theme" handle="2249/1" path="Reference/" />

  `<theme name="My Theme" regex=".*" path="Reference/" />`

Theme Tools

- Browse specific CSS stylesheets
  - Deliver different style sheets based upon the browser
  - Works well

- Client side XSL transformations
  - Deliver the DRI document to the browser
  - Only works in some cases
    - No use of XSL includes or imports
Example Theme

- Digital Initiatives Labs
  - http://labs.di.tamu.edu:8080/
  
or
  - Embedded screenshots
Questions
Manakin Homepage

DSpace Manakin is Live

Welcome to our new Manakin interface to the DSpace digital repository of My University.

More exciting news to appear here.

Search DSpace

Enter some text in the box below to search DSpace

Communities in DSpace

Select a community to browse its collections.

( back )
Title: Advancing line of skirmishes.
Author: Wheelan, John D.
Abstract: This collection is archived in the Cushing Memorial Library and Archives, Texas A&M University, College Station, TX. The captions and/or descriptive information are transcribed from the images. Cushing Library has not validated its accuracy.
Description:
URL: http://hdl.handle.net/123456789/217
Date: 2006-01-23

Files in this item

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