Manakin themes:
Customizing the look and feel of DSpace

Alexey Maslov, Cody Green, Adam Mikeal, Scott Phillips, and John Leggett
Outline

- Overview and theme components
- Creating a new theme
- Basic theme development
- Complex theme development
Overview and Theme Components
Review

- What is Manakin?
- What does Manakin do?
- How does Manakin do it?
Quick Review
Quick Review
Quick Review
What does a theme do?

- Convert DRI to a more usable format
- Style the result
Theme components

- Sitemap
  - The heart of a theme
  - A configuration file
  - References other components
- XSL
  - Converts DRI to HTML
- CSS
  - Styles the resulting HTML
Providing your own components
Providing your own components

```
<sitemap>
  <!-- Step 1: Generate the DRI page -->
  <generate src="coocon://DRI/{f}/"/>

  <!-- Step 2: Add page metadata -->
  <select type="browser">
    <when test="explorer6">
      <parameter name="stylesheet" value="style.css"/>
      ...
    </when>
    ...
  </select>

  <!-- Step 3: Transform to XHTML -->
  <transform src="..\dri2xhtml.xsl"/>

  <!-- Step 4: Localize the page -->
  <transform type="i18n"/>

  <!-- Step 5: Serialize to the browser -->
  <serialize type="xhtml"/>
</sitemap>
```
Referencing components from elsewhere
So what is a theme?

- A theme is a tool to convert from a DRI document to a user-readable format
  - *Uses XSL to convert from DRI XML to XHTML*
  - *Styles the result with CSS*
- The sitemap is the heart of a theme, referencing other components to actually perform the theme’s task
  - *Those components are reusable*
  - *Some are provided for you*
Theme Creation
How do you create a new theme?

- Create a new directory and sitemap
- Configure the sitemap and provide the necessary components
- Install the newly created theme
Create

- Locate the Themes directory
- Create the new directory and name it after your new theme
- Copy the contents of the template into your newly created theme directory
Configure

- Editing the `<theme-path>`
- The default template sitemap is configured to:
  - use existing XSL
  - reference CSS files
  - internationalize the result using default settings
Install

- The xmlui.xconf configuration file
- Theme settings
  - Theme path
  - URL matching rules: regex, handle, or both
  - Theme name
Documentation

- Theme creation tutorial
  - [www.di.tamu.edu/projects/xmlui/manakin/resources/ThemeTutorial.pdf](http://www.di.tamu.edu/projects/xmlui/manakin/resources/ThemeTutorial.pdf)
  - *Also available from the Manakin source tree*

- Internal documentation
  - [sitemap.xmap](http://sitemap.xmap)
  - [xmlui.xconf](http://xmlui.xconf)
Results so far...

- Theme created and installed
- Default XSL used
- No styling applied
Basic Theme Development
Tiers review

1. **Style Tier**
   - XHTML + CSS
   - Create simple themes

2. **Theme Tier**
   - XSL + XHTML + CSS
   - Create complex themes

3. **Aspect Tier**
   - Cocoon + Java
   - Add new features
Creating a new style

- Start out with a blank CSS
- Make sure the theme’s sitemap references it
- Fill it with CSS rules
Style Application Overview
The mechanics of styling

- The sitemap does not apply the CSS to the XHTML.
- The sitemap adds metadata tags to the pageMeta of the DRI document that point to the CSS.
- Once the XSL builds the head element of the XHTML document, it places the CSS link there.
So far...

- CSS styles applied
- Theme created and installed
- Default XSL used
Complex Theme Development
Tiers review

1. Style Tier
   - XHTML + CSS
   - Create simple themes

2. Theme Tier
   - XSL + XHTML + CSS
   - Create complex themes

3. Aspect Tier
   - Cocoon + Java
   - Add new features
How do you make XSL changes?

- Use existing XSL library
- Override individual templates
What is XSL?
XSL in Manakin
DRI → XSL → XHTML

- dri2xhtml
- structural
- metadata handlers

XSL in Manakin
The specifics of theme XSL imports

- The theme template also comes with a token XSL file that is by default not used in the sitemap.

- To make your own XSL changes:
  - Modify the sitemap to include the theme’s XSL.
  - Copy the template you want to override from structural.xsl to your theme’s XSL.
  - Any changes made in the theme’s XSL will override the template from structural.
Complete picture
So far...

- Partially overridden XSL used
- Theme created and installed
- CSS styles applied
Advanced Topics
Some of the advanced topics

- Metadata handlers
- Non-HTML output formats
- Internationalization
- Static page insertion
- Non-XSL transformations