DSpace XML UI: Manakin

Defacing DSpace with Manakin

DSpace User Group, February 2006

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http://di.tamu.edu/

Digital Initiatives
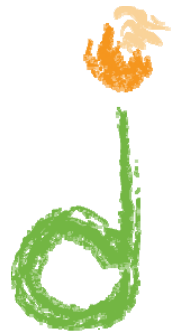Research & Technology

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Outline

- Introduction to the XML UI project

- Moa & Manakin

- Manakin's structure

- Aspects & Themes

- Project status & Future work

What is The XML UI?

- The XML UI is a project to develop a new front-end for DSpace

  - Enable communities and collections to customize their interface
  - Separate business logic from stylistic design
  - Enable internationalization & localization of content
  - Provide an alternative interface
  - Modular interface to enable parallel development (new)
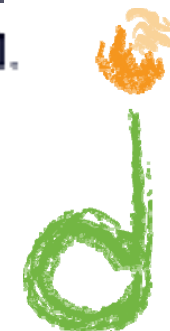
- History
  - Moa
  - Manakin
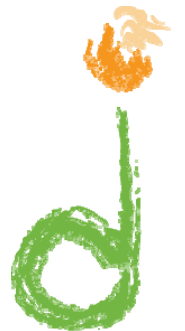
Why?

- The XML UI provides:
  - Branding
    - University level
    - Community level
    - Collection level
  - Institutional / Community credibility
  - Community ownership & buy in
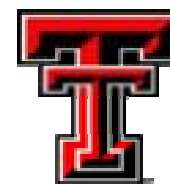
- Increase community adoption of DSpace

What is Moa?

- The first version of the XML UI project
  - DOM based
  - Static three stage pipeline
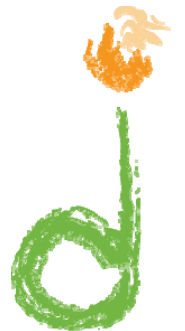 - XSL Transformations
  - Full Source code available at:
    - http://di.tamu.edu/projects/xmlui/moa/

Moa Screen shots:

What we learned from Moa

- Changing the look-and-feel for individual communities is useful.

- XSL based Themes work.

- DSpace needs an interface modularity system.

- Themes should use metadata in native formats.

What does Manakin add?

- Manakin is the next version of the XML UI project
  - Based upon the Apache Cocoon framework
  - Designed using Separation of Concerns
  - Uses a SAX based pipeline
  - Current source code available via CVS at:
    - http://di.tamu.edu/projects/xmlui/manakin/

- These technologies enable
  - *N*-stage pipeline architecture
  - UI Modularity
  - Parallel Development

http://cocoon.apache.org/
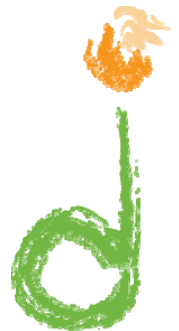
Manakin vs JSP UI

- **Current JSP based interface**
  - No presentation layer
  - Difficult to extend (and maintain!)
  - Heavy use of HTML table layout

- **Manakin**
  - Separate presentation layer
  - Ability to extend
  - Themes per communities / collections
  - Metadata in native formats
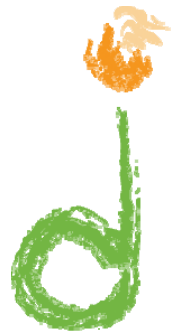
Manakin Structural Overview

Manakin uses a pipeline architecture composed of two parts:

Content Generation   Style Application

Aspect **1**   Aspect **2**   Aspect **3**   Theme
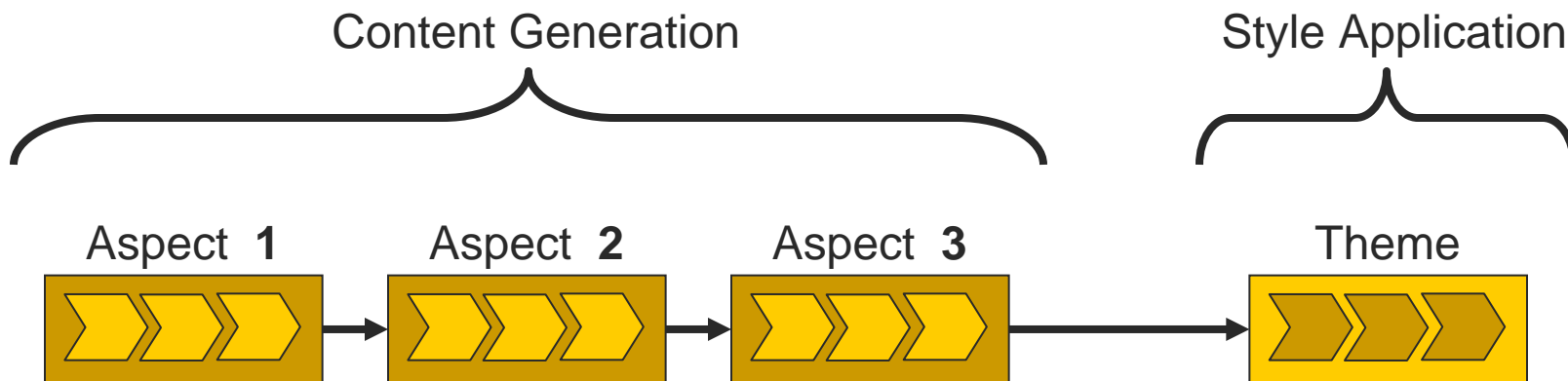
(example Aspect chain)

Manakin & DSpace

- Manakin sits on top of DSpace along with other DSpace applications
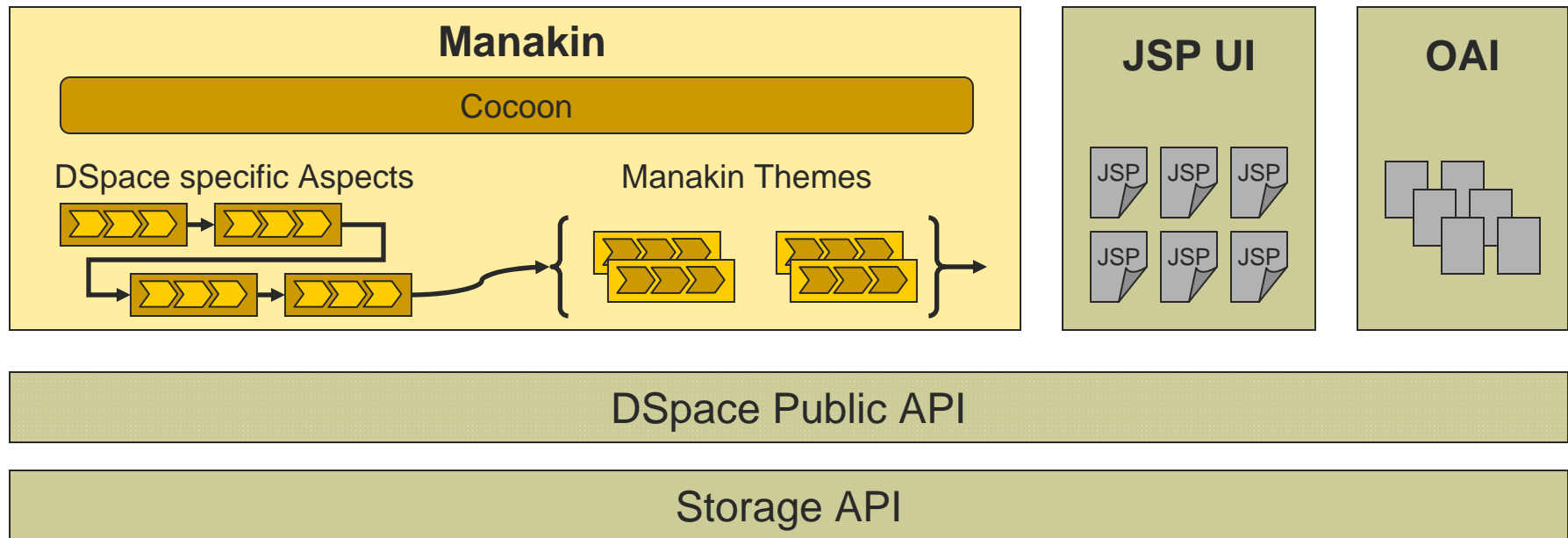
Project Status

- **Cocoon-based Wing-framework**
  - Chain Aspects
  - Apply selected theme

- **Artifact Browser Aspect**
  - Browse communities & collections by title, date, or authors
  - Search the repository
  - View items

- **Themes**
  - Reference theme completed

Future Work

- **Develop the standard Aspects**
  - All the current functionality of DSpace

- **Future Theme Work**
  - Standard Theme Library
  - Formats other than XHTML, such as PDF & WML
  - AJAX, RSS, STX and other hip "buzzword" technologies

- **Future Aspect Work**
  - Improved searching & browsing capabilities

- **User selected themes**

Example

- Texas Digital Library
  - http://www.tdl.org/

    or

  - Embedded Screen shots
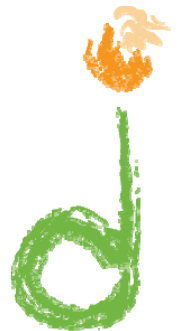
Questions?

- More information may be found at:
  - http://di.tamu.edu/projects/xmlui/manakin/

  - News and updates
  - Manakin Developers Guide
  - CVS Access

Red-capped Manakin

(Video)

Folder Theme

Sapphire Theme

Introduction Theme

Amber Theme

Texas Digital Library

DSpace Homepage

Browse By Title

Item View

Collection Homepage