Configurable Submission System For DSpace

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How it all began

- DSpace submission process (v. 1.4.1)
  - Limited configuration of steps in submission

Configurable in `input-forms.xml`
Submission Concerns

• Do we even want those “initial questions”?
• Users dislike License as final step
Submission Goals

- What do we want to be able to do?
  - Reorder existing steps
  - Remove existing steps
  - Create new, custom steps
  - Create non-interactive steps (processing only)
  - Different submission processes for different collections
Programming Goals

- Separate the flow from the processing code!
  - Remove any “hard coding” of flow

![Diagram showing flow separation](image)
Dissecting Submission

- Split process into conceptual “steps”
  - Each step should be as standalone as possible

- Some steps may have multiple “pages”
  - e.g. Describe (Metadata) step above
    - # pages configurable in existing input-forms.xml
Dissecting Submission

- Oddities & complexities begin to emerge
  1. “Select a collection” as a step?
  2. “Initial Questions” step just gathers info to configure both “Describe” and “Upload”
  3. “Verify” step depends on all preceding steps
Dissecting Submission

• Decisions, decisions, decisions

  (1) “Select a collection” is an implied step, which cannot be removed or reordered

  (2) To serve its purpose, “Initial Questions” should always proceed “Describe” and “Upload” steps

  (3) Every step will have to report to the “Verify” step (so its interface can be built dynamically)
How to configure?

- XML config file (e.g. `input-forms.xml`) versus Database driven
- XML route
  - Quicker/easier to modify without need for an entire Administrative UI
  - Consistent with current input form configuration (`input-forms.xml`)
  - However, DSpace admin must be comfortable with XML to do basic reconfigurations
<item-submission>
  <submission-map>
    <name-map collection-handle="default" submission-name="traditional" />
  </submission-map>
  <submission-definitions>
    <submission-process name="traditional">...
      <step>
        <heading>jsp.submit.progressbar.describe</heading>
        <processing-class>
          org.dspace.submit.step.DescribeStep</processing-class>
        <review-jsp>/submit/review-metadata.jsp</review-jsp>
        <workflow-editable>true</workflow-editable>
      </step>
      ...
    </submission-process>
  </submission-definitions>
</item-submission>
<step> ordering matters

<submission-process name="custom">
  <!-- 1) License Step -->
  <step>
    <heading>jsp.submit.progressbar.license</heading>
    <processing-class>org.dspace.submit.step.LicenseStep</processing-class>
    <workflow-editable>false</workflow-editable>
  </step>
  <!-- 2) Describe Step -->
  <step>
    <heading>jsp.submit.progressbar.describe</heading>
    <processing-class>org.dspace.submit.step.DescribeStep</processing-class>
    <review-jsp>/submit/review-metadata.jsp</review-jsp>
    <workflow-editable>true</workflow-editable>
  </step>
  ...
</submission-process>
<step> definition

<step>
   <heading>jsp.submitprogressbar.describe</heading>
   <processing-class>org.dspace.submit.step.DescribeStep</processing-class>
   <review-jsp>/submit/review-metadata.jsp</review-jsp>
   <workflow-editable>true</workflow-editable>
</step>

• heading : text in messages.properties (I18N)
• **processing-class** : Java processing class (**required**)
• review-jsp : JSP which displays inputs to “verify”
• workflow-editable : can workflow approval steps edit inputs?
<step> definition (Manakin)

<step>
  <heading>jsp.submit.progressbar.describe</heading>
  <processing-class>
    org.dspace.submit.step.DescribeStep
  </processing-class>
  <xml-ui-class>
    org.dspace.app.xmlui.submit.step.DescribeStep
  </xml-ui-class>
  <workflow-editable>true</workflow-editable>
</step>

- review-jsp → obsolete
- xml-ui-class : Manakin XML Transformer class
- Still a work in progress
Custom Step – Overview

(1) Custom processing step class

- extends abstract SubmissionStep class
- Just two required methods: doProcessing(), getNumberOfPages()

(2) `<step>` definition in `item-submission.xml`
Custom Step – Overview

(3-a) If step uses JSP UI

- Custom JSP to build form for user input
- Custom “review” JSP (if step can be reviewed)
Custom Step – Overview

(3-b) If step uses Manakin UI

- Custom Transformer class
  - extends abstract StepTransformer class
    - corresponding `<xml-ui-class>` entry within `<step>`
Configurable Submission in IDEALS

Processing Step

Processing Step (future?)
Configurable Submission in IDEALS

- Post-License processing
  - Fill out IDEALS defaults for “initial questions”
- Post-Upload processing (future)
  - Auto-extract / populate some basic metadata?
  - Potentially “customize” input forms based on file uploaded?
Demo

- http://ideals.uiuc.edu

or

- Screenshots
For More Information

Configurable Submission System
http://wiki.dspace.org/ConfigurableSubmissionSystem

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</thead>
<tbody>
<tr>
<td>OR2007-ConfigurableSubmission.ppt</td>
<td>257536 bytes</td>
<td>None</td>
<td>Microsoft Powerpoint (known)</td>
</tr>
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</table>

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Submit: Verify Submission

Not quite there yet, but nearly!

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