

Configurable Submission System For DSpace



Open Repositories
January 23, 2007

Tim Donohue
IDEALS Research Programmer
University of Illinois

Illinois
Digital
Environment for
Access to
Learning and
Scholarship



How it all began



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

DSpace™ [About DSpace Software](#)

Describe Describe Describe Upload Verify License Complete

Submit: Describe this Item

Please check the boxes next to the statements that apply to this submission. [More Help...](#)

- The item has more than one title, e.g. a translated title
- The item has been published or publicly distributed before
- The item consists of *more than one* file

Next > Cancel/Save

Configurable in `input-forms.xml`



Submission Concerns



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

DSpace™ [About DSpace Software](#)

Describe Describe Describe Upload Verify **License** Complete

Submit: Describe this Item

Please check the boxes next to the statements that apply to this submission. [More Help...](#)

- The item has more than one title, e.g. a translated title
- The item has been published or publicly distributed before
- The item consists of *more than one* file

Next > Cancel/Save



Submission Goals



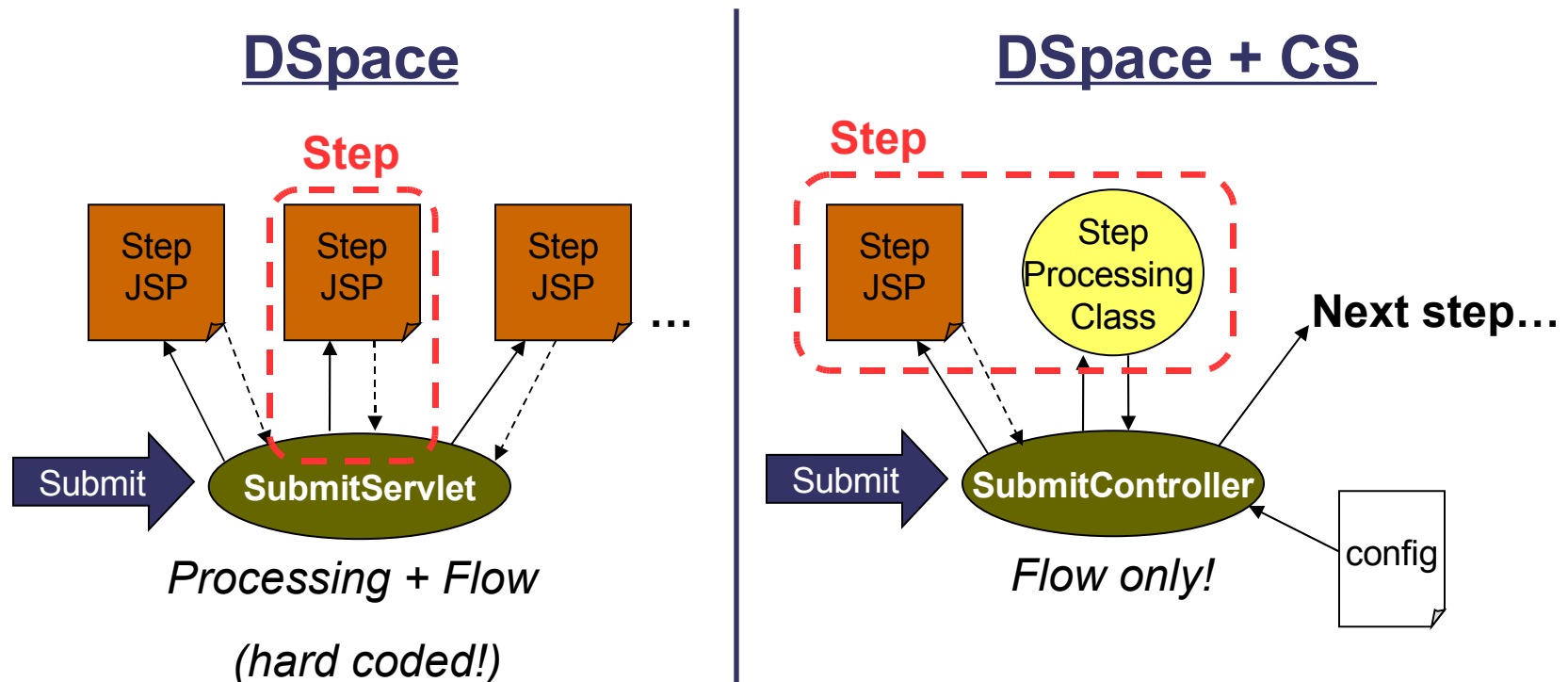
- What do we want to be able to do?
 - Reorder existing steps
 - Remove existing steps
 - Create new, custom steps
 - Create non-interactive steps (processing only)
 - Different submission processes for different collections



Programming Goals



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



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.xml



```
<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>
```

```
  ...
```



<step> definition



<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>

- 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



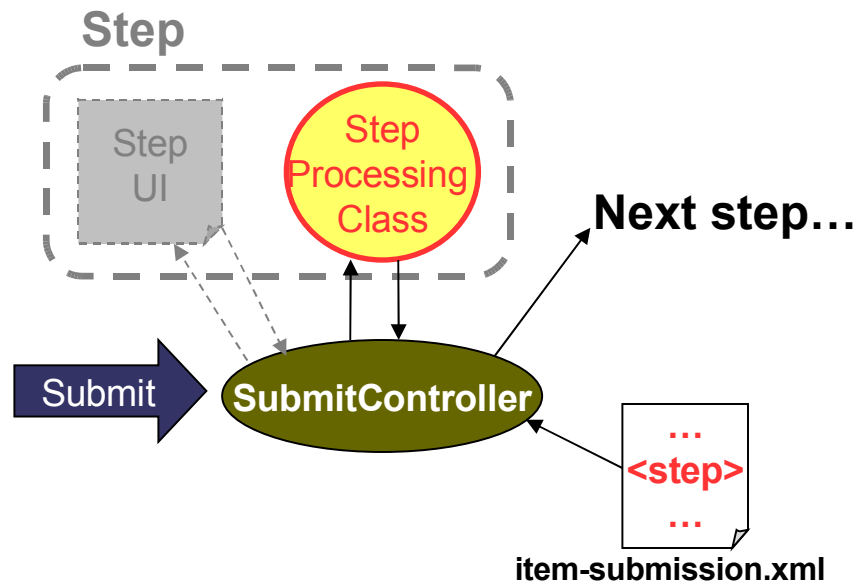
Custom Step – Overview



(1) Custom processing step class

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

(2) `<step>` definition in `item-submission.xml`

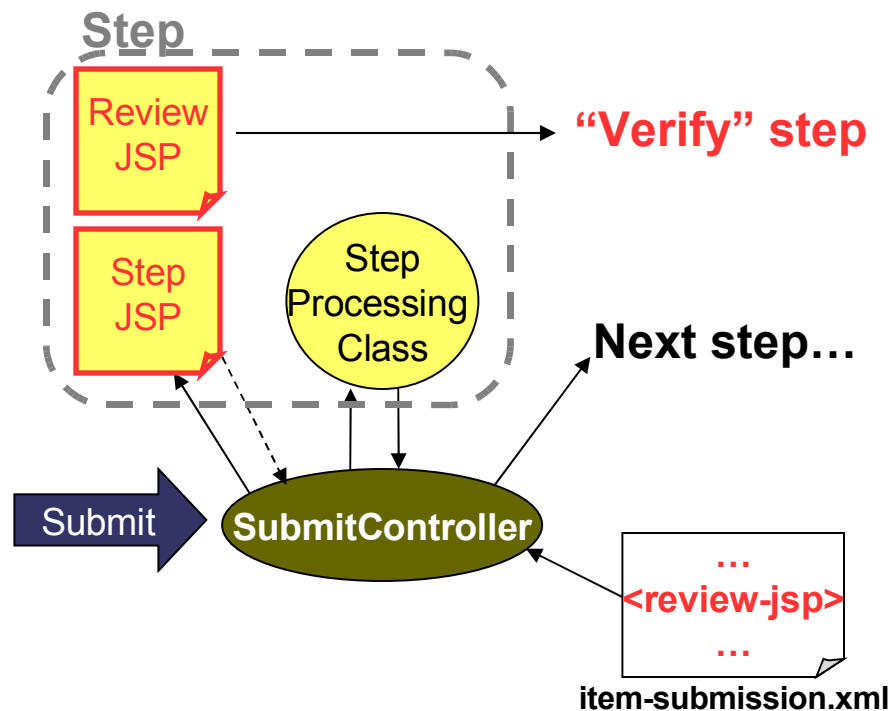


Custom Step – Overview



(3-a) If step uses JSP UI

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

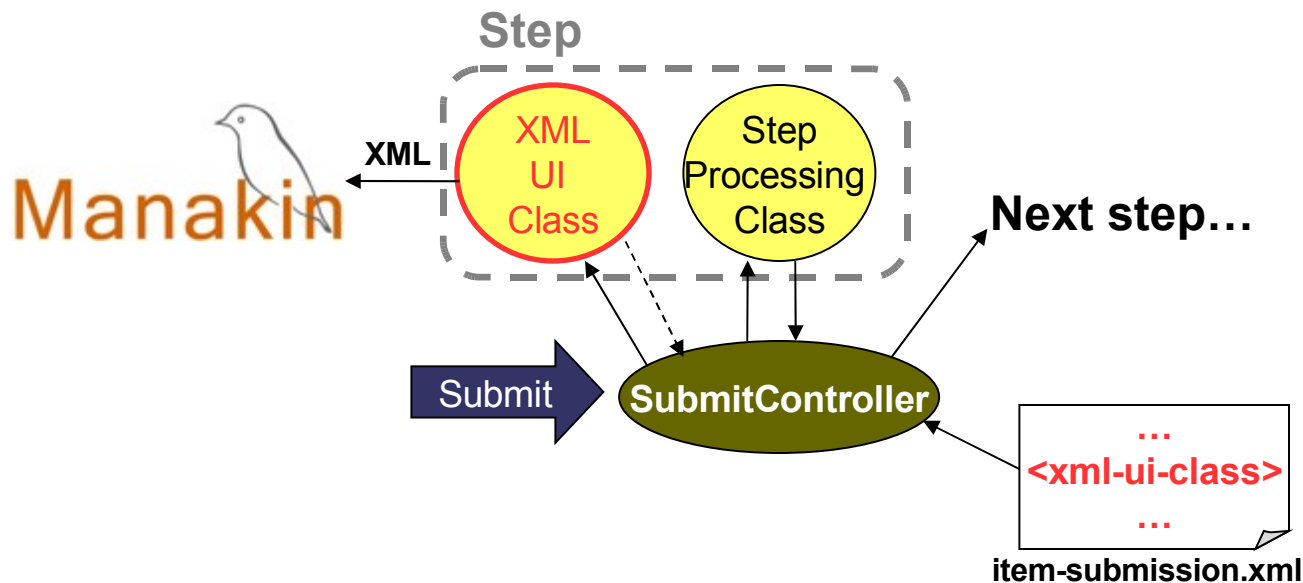


Custom Step – Overview

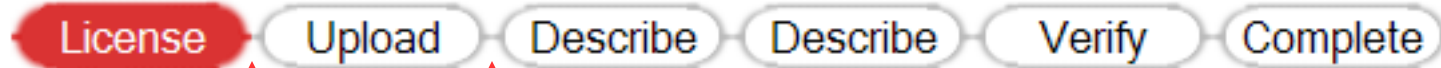
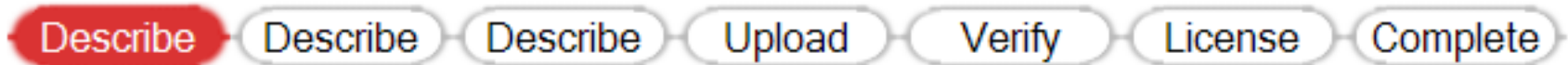


(3-b) If step uses Manakin UI

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



Configurable Submission in IDEALS



Processing Step

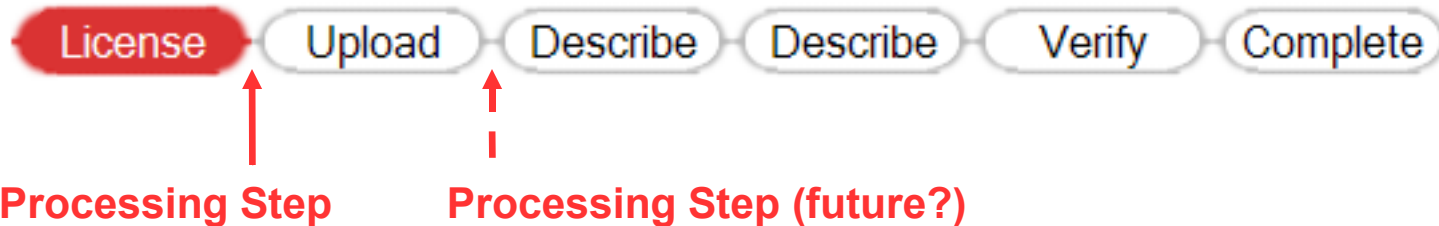
Processing Step (future?)



Configurable Submission in IDEALS



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>

Tim Donohue

IDEALS Research Programmer

tdonohue@uiuc.edu

IDEALS

<http://ideals.uiuc.edu/>



© 2007, Tim Donohue

This work is licensed under Creative Commons Attribution-NonCommercial-ShareAlike 2.5 License.

To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/2.5/>



Select a Collection

Back

The screenshot shows a Mozilla Firefox browser window with the address bar at <https://www.ideals.uiuc.edu/submit>. The page features the IDEALS logo on the left and the text "Illinois Digital Environment for Access to Learning and Scholarship" on the right. The main heading is "Submit: Choose Collection". Below this, a text prompt reads: "Select the collection you wish to submit an item to from the list below, then click 'Next'. [More Help...](#)". A dropdown menu labeled "Collection" is set to "University Library Faculty and Staff Research". At the bottom right of the form area are "Next >" and "Cancel" buttons. The footer contains navigation links: "Contact | Feedback | UIUC Library | CITES | Office of the Provost", copyright information "Copyright © 2005-2006 University of Illinois at Urbana-Champaign", and logos for W3C XHTML 1.0 and W3C CSS. On the far right, it says "Powered by DSPACE".

IDEALS

Illinois Digital Environment for Access to Learning and Scholarship

Submit: Choose Collection

Select the collection you wish to submit an item to from the list below, then click "Next". [More Help...](#)

Collection:

Contact | Feedback | UIUC Library | CITES | Office of the Provost
Copyright © 2005-2006 University of Illinois at Urbana-Champaign

Powered by DSPACE

W3C XHTML 1.0 ✓ W3C CSS ✓

License

Back

IDEALS: Research and Scholarship of the University of Illinois at Urbana-Champaign: IDEALS Distribution License - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://www.ideals.uiuc.edu/submit

IDEALS

Illinois Digital Environment for Access to Learning and Scholarship

License Upload Describe Describe Verify Complete

In order for IDEALS to reproduce, translate and distribute your submission worldwide, your agreement to the following terms is necessary. Please take a moment to read the terms of this license, and click on one of the buttons at the bottom of the page. By clicking on the "I Grant the License" button, you indicate that you grant the following terms of the license. [See the IDEALS Copyright Policy for more information.](#)

Not granting the license will stop your submission. If you have any concerns or questions about this license, we suggest that you contact the IDEALS Staff to resolve them.

[Not sure if you have the rights to grant this license?](#)

[Not sure if your publisher allows submission to IDEALS?](#)

IDEALS Deposit Agreement: Non-Exclusive Distribution and Preservation License
<http://ideals.uiuc.edu/>

To properly administer the Illinois Digital Environment for Access to Learning and Scholarship (IDEALS) and preserve the contents for future use, the Board of Trustees of the University of Illinois on behalf of its Urbana-Champaign campus (the "University") requires certain permissions and warrants from you, the author(s) and/or copyright owner. If you are the copyright owner, by accepting this license, you still retain copyright to your work and do not give up the right to submit the work to publishers or other repositories. If you are not the copyright owner, you represent that the copyright owner has given you permission to deposit the work.

By accepting (clicking through) this license, you grant to the University the non-exclusive right to reproduce, translate (as described below), and distribute the submission, including the descriptive information (metadata) and abstract, in any format or medium worldwide and royalty-free, including, but not limited to, publication over the Internet, except as provided for by an addendum to this agreement.

When provided, the University will clearly identify your name(s) as the author(s) or

Upload

Back

IDEALS: Research and Scholarship of the University of Illinois at Urbana-Champaign: Upload a File - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://www.ideals.uiuc.edu/submit

IDEALS Illinois Digital Environment for Access to Learning and Scholarship

License Upload Describe Describe Verify Complete

Submit: Upload a File

If you click "Browse...", a new window will appear in which you can locate and select the file on your local hard drive. Please also note that the IDEALS system is able to preserve the content of certain types of files better than other types. [Information about file types and levels of support](#) for each are available.


Document File: [What if I have multiple files?](#)
(required) [Help...](#)



Please give a brief description of the contents of this file, for example "Main article", or "Experiment data readings". Note, you'll be able to fully describe the item later in the process.

File Description:

< Previous Upload File > Exit / Save

Contact | Feedback | UIUC Library | CITES | Office of the Provost
Copyright © 2005-2006 University of Illinois at Urbana-Champaign

Powered by  DSPACE

W3C XHTML 1.0  W3C CSS 

Upload (Confirmation)

Back

IDEALS: Research and Scholarship of the University of Illinois at Urbana-Champaign: Uploaded Files - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://www.ideals.uiuc.edu/submit

IDEALS Illinois Digital Environment for Access to Learning and Scholarship

License Upload Describe Describe Verify Complete

Submit: File Uploaded Successfully

Your file was successfully uploaded.


The table below shows the files you have uploaded for this item. [More Help...](#)



File	File Size	File Description	File Format	
OR2007-ConfigurableSubmission.ppt	257536 bytes	None Change	Microsoft Powerpoint (known) Change	Remove

[Add Related File](#) [Why would I want to upload multiple files?](#)

[< Previous](#) [Next >](#) [Exit / Save](#)

Contact | [Feedback](#) | [UIUC Library](#) | [CITES](#) | [Office of the Provost](#)
Copyright © 2005-2006 University of Illinois at Urbana-Champaign

Powered by  DSPACE

Describe (#1)

Back

IDEALS: Research and Scholarship of the University of Illinois at Urbana-Champaign: Describe Your Item - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://www.ideals.uiuc.edu/submit

IDEALS Illinois Digital Environment for Access to Learning and Scholarship

License Upload **Describe** Describe Verify Complete

Submit: Describe Your Item

Please fill in the requested information about your submission below. In most browsers, you can use the tab key to move the cursor to the next input box or button, to save you having to use the mouse each time. ([More Help...](#))

View Uploaded File
(in new window):
[OR2007-ConfigurableSubmission.ppt](#)

For your reference, we've included a link to the file you uploaded (or the "default file to display" if you uploaded multiple files).

Author(s) or Creator(s):

<input type="text"/>	<input type="text"/>	<input type="button" value="Add More"/>
<small>Last name e.g. Smith or Corporate Name if appropriate</small>	<small>First name(s) + Middle Initial + "Jr." e.g. Donald L. Jr.</small>	

Additional Contributor(s):
(e.g. editors, advisors)

<input type="text"/>	<input type="text"/>	<input type="button" value="Add More"/>
<small>Last name e.g. Smith or Corporate Name if appropriate</small>	<small>First name(s) + Middle Initial + "Jr." e.g. Donald L. Jr.</small>	

Title(s):
(required)

<input type="text"/>	<input type="button" value="Add More"/>
----------------------	---

Type of Resource:
(required)

<input type="checkbox"/> Audio	<input type="checkbox"/> Text
<input type="checkbox"/> Dataset (e.g. Spreadsheet)	<input type="checkbox"/> Video
<input type="checkbox"/> Image	<input type="checkbox"/> Other

Genre of Resource:

<input type="checkbox"/> Article	<input type="checkbox"/> Lecture or Talk
<input type="checkbox"/> Book Chapter	<input type="checkbox"/> Informal Presentation
<input type="checkbox"/> Essay	<input type="checkbox"/> Photograph
<input type="checkbox"/> Working / Discussion Paper	<input type="checkbox"/> Drawing

Describe (#2)

Back

IDEALS: Research and Scholarship of the University of Illinois at Urbana-Champaign: Describe Your Item - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://www.ideals.uiuc.edu/submit#dc_subject

IDEALS

Illinois Digital Environment for Access to Learning and Scholarship

License Upload Describe Describe Verify Complete

Submit: Describe Your Item

Please fill further information about your submission below. ([More Help...](#))

View Uploaded File
(in new window):
[OR2007-ConfigurableSubmission.ppt](#)

For your reference, we've included a link to the file you uploaded (or the "default file to display" if you uploaded multiple files).

Publication Status: Published or Planned for Publication
 No Plan for Publication

Peer-Reviewed: Yes
 No

Citation Information:
If published, enter any citation information you have (e.g. journal name, volume, issue, and page numbers)

Publisher:
If published, please enter the publisher.

Series Name/Report no.:
(e.g. "Blackwell Philosophy Anthologies, no. 4" or "FERIC special report, no. SR-121")

Additional Identifiers: ISSN

Creator(s)/Contributor(s):

Verify

Back

IDEALS: Research and Scholarship of the University of Illinois at Urbana-Champaign: Verify Submission - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://www.ideals.uiuc.edu/submit

IDEALS

Illinois Digital Environment for Access to Learning and Scholarship

License Upload Describe Describe **Verify** Complete

Submit: Verify Submission

Not quite there yet, but nearly!

Please spend a few minutes to examine what you've just submitted below. If anything is wrong, please go back and correct it by using the buttons next to the error, or by clicking on the progress bar at the top of the page. [More Help...](#)

If everything is OK, please click the "Finish" button at the bottom of the page.

Uploaded Files: [OR2007-ConfigurableSubmission.ppt](#) - Microsoft Powerpoint (Known) [Add or Remove a File](#)

You can verify that the file(s) have been uploaded correctly by clicking on the filenames above. This will download the file in a new browser window, so that you can check the contents.

Author(s) or Creator(s):	Donohue, Timothy G.
Additional Contributor(s):	None
Title(s):	Configurable Submission for Dspace
Type of Resource:	Image Text
Genre of Resource:	Conference Paper / Presentation
Date of Publication or Distribution:	2007-Jan-23
Subject Keywords:	DSpace IDEALS submission configuration

[Correct one of these](#)