

Bucket Administration Tool Design

ODU DLIBUG group

1 Overview

The purpose of this document is to specify the software and the interface design of the Digital library Administration Tool.

2 Related Documents

<http://www.cs.odu.edu/~dlibug/documents/collection/buckets/design.doc>

The above document focuses on the relationship between the different tools in the digital library and the security model.

3> Functional Specifications

3.1 User Login

- Members of the administration tool are allowed to log in, and the security is based on the web server security model.

3.2 Template additions, Terms & condition Editing and handle generation

- Make a specific Template available to the authors by placing it in the template directory. The administrator provides the directory path of the new template and it is copied into the template directory and a template file in the communication directory is updated.
- Create and edit a file of terms and conditions that are available to the user. This includes IP and domain names access control.
- Allow the administrator to generate new temporary handles. For example if the administrator wishes to provide a prefix for all technical reports as 'TR' it can be provided using this feature.

3.3 User Administration

- Add new User, Delete user.
- Group management; providing facility for adding and deleting members from groups. And creation of new groups viz. User Group, Viewer Group.

3.4 Log Files

- Display Dienst log files which can be viewed by date.
- Display bucket log files, which may selected from a list of buckets (using handle or author name or title).
- Display Dienst configuration files.
- Display contents of the different archives, for example staging archive, publishing archive.

3.5 Bucket Multicasting

- The administrator can add a specific element or package to a collection of buckets or delete all the log files in the buckets, the tool provides a facility to do it by choosing the buckets on which such an operation has to be performed.
- The choice of buckets over which the operation is to be performed can be specified by author name, title, archive, subject / sub subject, terms & conditions.
- The operations to be performed can be selected from a drop down menu which offers the choices - add element, add package, delete log files, change T&C. (*Does this also include setting and removing buckets methods. For example update all buckets with newer versions*).
- For operations that cannot be predetermined; the administrator may apply any script to the collection of buckets, by specifying the path of the script.
- Add operations to operation list.

4> Design Specifications

Directory organization

Tool/

Administration/

Management/

Creation/

conf/

Directory.conf*

Group/

Group*

User/

Passwd*

TC/

Tc.conf*

Nasa.tc*

Nobody.tc*

Template/

Template.conf*

Nasa.tar.gz*

Nobody.tar.gz*

Handle/

Handle.prefix*

Handle.id*

Operations/

Operations.conf*

Operations.input*

File Structure

Directory.conf

Administration	/home/tool/Administration
Management	/home/tool/Management
Creation	/home/tool/Creation
Group	/home/tool/conf/Group
Passwd	/home/tool/conf/User/Passwd
Tc	/home/tool/conf/Tc/Tc.conf
Template	/home/tool/conf/Template/Template.conf
Handle_prefix	/home/tool/conf/Handle/Handle.prefix
Handle_id	/home/tool/conf/Handle/Handle.id
Operations	/home/tool/conf/Operations/Operations.conf
Operations_input	/home/tool/conf/Operations/Operations.input

Group

Administrator: tom fred bilbo nelson
Creator: harry karl frodo nelson
Manager: maly zubair

Passwd

Donna:NNN345
Calvin:IZZWXWER4
Nelson:PPKSF938S

Tc.conf

NasaReadable :: /home/tool/conf/nasa.tc
AnyoneReadable :: /home/tool/conf/nobody.tc

Template.conf

Tech-Report :: /home/tool/conf/Template/tech.tar.gz
Conference-paper :: /home/tool/conf/Template/conference.tar.gz

Handle.prefix

NASA-LTRS
NASA-NACA

Handle.id

0001

Operations.conf

Add SFX Button :: /home/nelson/dli/tools/addsfx.pl

Delete_log :: /home/tool/deletelog.pl

4.1 User Login

This is achieved by using basic web authentication in format of a .htaccess file and a user and password combination.

4.2 Template additions, Terms and conditions Editing, handle Generation

- Making a template available to the author_tool.
Input: The path of the directory in which the new template exists
Output: Copy of the template in the Template directory. And an entry is made in the ***Template.conf*** file in the given file format.
- Adding new terms and conditions.
Input: The path of the directory in which the new .tc file is located.
Output: An update in the ***Tc.conf*** file.
- Adding a new handle to the list of already existing handle prefixes
Input: The input is in the form of a text box for change in prefix and a new serial number in case of a change in Handle id .
Output: The handle_file is updated in the Handle directory Make additions to the Handle.prefix file or the Handle.id file depending on input.

4.3 User Administration

- Add new user, delete user
Input: The user name and password, in case of delete just the user name.
Output: The user password file is updated in the Passwd file.
- Group Management providing facility for adding deleting members from groups and creation of new groups

Input: the page will list all the present groups and the users in the user list which will allow the administrator to manipulate the groups .

Output: Update the file Group.

4.4 Log Files

- Read log files from Ncstrlplus.cs.odu.edu/dienst /logs/ and display its contents.
- Select bucket (This is done using the search interface similar to the manner in which it will be used in the bucket multicasting) and display its log files using bucket methods.
- Read and display the configuration files from Ncstrlplus.cs.odu.edu/dienst/Config/
- Display the contents of the different archives for example Ncstrlplus.cs.odu.edu/archive/staging

4.5 Bucket Multicasting

- To add a specific operation to the list. The path of the script has to be mentioned. All the operations are to be placed in a file Operations.conf in the given format.
- A specific operation may be performed on a list of buckets by providing an interface similar to that of the search interface , but once the results are returned the administrator has to tick all the check boxes of the buckets over which a specific operation has to be performed .All the URLs of the checked buckets get written into a file in the *Operations.input* file, this file is the standard input to all the operations that have to be performed over buckets using the multicasting tool.