Bucket Management Tool Design

ODU DLIBUG group

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1 overview
The purpose of this document is to define the software and interface design of bucket management tool. It’s part of bucket tool software design.

2 Applicable documents

2.1 System design document
http://www.cs.odu.edu/~dlibug/documents/collection/bucket/design.doc

Overarching system design for the bucket tools, this document is focusing on relationships between different tool and security model. Reading system design document is preferred.

3 Functional design

3.1 User login
Only member of manager group may login to management tool. The implementation is based on web server security model.

(Questions: Shall different manager use same staging archival? Or different manager has different staging archival? This is related to author tool.)

3.2 Bucket View/Selection
- List all buckets in staging archival, in this step, only some fields will be shown (Questions: which fields should be shown?)
- Browse metadata, package and element of a specific bucket.

3.3 Set bucket term & condition
There are two steps:
- Template selection: Manager can select pre-defined term & condition. Currently, pre-defined term & condition includes: (i) anyone readable and nasa editable. (ii) nasa readable and nasa editable.
- Fine-grained definition: Manager can fully exploit flexibility provided by bucket security api, which includes ip/host/user/group/method combination.

3.4 Set Bucket id
Before publication, manager should appoint bucket id defined by manually procedure.

3.5 Approve bucket
If bucket is ready to publish, manager can approve and move it from staging archival to published archival.

4 Interface design

4.1 Login

```
Username
Password
Sign-in
```
4.2 Select bucket in staging archival

<table>
<thead>
<tr>
<th>Bucket ID</th>
<th>Creator</th>
<th>Submission Date</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasa-tr-1231(Link to specific bucket)</td>
<td>Tom</td>
<td>12/09/99</td>
<td>Distributed system</td>
</tr>
</tbody>
</table>

4.3 Show bucket information in detail

This will call bucket display method.

Frame 1.
like: bucket/index.cgi?method=display

Frame 2.
Accept and continue  Reject

4.4 Select bucket t&c

Select from pre-defined t&c

- Special t&c setup
- Continue

4.5 Special t&c setup

Method  IP
Dns/host  User/pass
Group  Package/element
Continue

4.6 Assign ID

- Input ID
- Re-input ID
- Continue
### 4.7 Approve

<table>
<thead>
<tr>
<th>All Bucket information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Approve</strong></td>
</tr>
<tr>
<td><strong>Postpone</strong></td>
</tr>
</tbody>
</table>

### 5 Appendix

#### 5.1 Existed management tool

By Ajoy, [http://dlib.cs.odu.edu:8000/buckets/manage.cgi](http://dlib.cs.odu.edu:8000/buckets/manage.cgi)

By Liu, [http://www.cs.odu.edu/~dlibug/related/BMAT.html](http://www.cs.odu.edu/~dlibug/related/BMAT.html)