
Hands On Islandora

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Install Islandora Virtualbox Image

- Install the Sun Virtualbox software and image by following Readme instructions from one of the distributed USB keys.
 - Windows and Mac Virtualbox installer is included on the key.
 - Solaris and Linux users will have to get a version of Virtualbox for their systems.
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Islandora is a Drupal module.

Drupal is:

- CMS with large active community.
- Very modular and flexible.

AND

- We get user, roles, permissions, themes etc. pretty much for free.
 - Integration with LDAP etc. Islandora does not know whether LDAP is being used or not.
 - We are only really scratching the service of its capabilities
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Islandora High-level Overview

Thanks Donald



Drupal Filter

- Islandora Drupal Filter. Edit fedora's web.xml to insert servlet filter in filter chain.
 - Connects to Drupal's db for authentication and gets roles out of Drupal for authorization
 - Drupal Roles can be used in xacml policies in Fedora
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Drupal Filter connection and query

```
<connection server="localhost" dbname="drupaldb"  
  user="dbuser" password="password" port="3306">  
  <sql>  
    SELECT DISTINCT u.uid AS userid, u.name AS  
    Name, u.pass AS Pass,r.name AS Role FROM  
    (users u LEFT JOIN users_roles ON  
    u.uid=users_roles.uid) LEFT JOIN role r ON  
    r.rid=users_roles.rid WHERE  
    u.name=? AND u.pass=?;  
  </sql>  
</connection>
```

Xacml

- Islandora uses simple policy templates. Example on the usb key.
 - In some cases we add users and roles to the templates. *Fedora-attach module*
 - If a collection object has a dsid of CHILD_SECURITY. Every object that is ingested into that collection will have POLICY stream = to collection objects CHILD_SECURITY
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Collections

- Collections are an important concept in Islandora. More for management than discovery/viewing.
 - Collection objects can include streams used to manage objects on ingest etc.
 - Example streams – COLLECTION_VIEW, QUERY, COLLECTION_POLICY, CHILD_SECURITY
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COLLECTION_VIEW

- Optional stream that defines how the collection will be displayed.
 - Consists of an xslt to transform the results of an ITQL query to html.
 - If COLLECTION_VIEW does not exist Islandora will use a default xslt.
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QUERY

- Optional text stream. ITQL query. If a custom query is used may have to have a custom `COLLECTION_VIEW` that knows how to transform the results of the query.
 - If `QUERY` stream does not exist uses default query included as part of Islandora
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COLLECTION_POLICY

- COLLECTION_POLICY tells Islandora what type of objects can be ingested in this Collection and what relationship it will have to the collection.

```
<collection_policy>
  <contentmodels>
    <contentmodel name="STRICT_PDF">
      <pid_namespace>vre:riri</pid_namespace>
      <pid>islandora:strict_pdf</pid>
      <dsid>ISLANDORACM</dsid>
    </contentmodel>
  </contentmodels>
  <relationship>isMemberOfCollection</relationship>
</collection_policy>
```

Islandora Content Models

- Islandora has its own notion of content models that can work along side Fedora's CMA.
 - Example
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Searching

- Islandora uses Gsearch and Lucene for searching.
 - Gsearch can be configured using xslt's to index various different content such as MODS, TEI, DC
 - Islandora reads a file called searchTerms.xml to build the search form.
 - Hope to move to SOLR soon.
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Smaller modules and api.

- Drupal is very modular. Modules can call a function `module_invoke_all("astring")` and all modules that implement a function call `<module>_astring()` will have that function called.
 - Islandora api will call this function at appropriate times. This will allow small targeted modules to possibly sink data between Fedora and Drupal etc.
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Modules cont.

- Small modules can also be used for things like the fedora-attach (which attaches a file to a node).
 - Small modules can also be used to customize ui's. Ilives does this to break out of the default behaviour of Islandora.
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Demo

Notes

- Meta data leak (have implemented multiple indexes which helps a little).

