

# OpenWMS User Manual

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Workflow Management System for analog and digital  
objects



**Version 3.3.0**

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To contact Rutgers University Libraries about OpenWMS, please visit  
<http://rucore.libraries.rutgers.edu/open/projects>.

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## I. Introduction to OpenWMS

The OpenWMS is a platform-independent, open source, web-accessible system that can be used as a standalone application or integrated with other repository architectures by a wide range of organizations. It provides a complete metadata creation system for analog and digital materials, with services to ingest objects and metadata into a Fedora repository and to export these objects and metadata, individually and in bulk in METS/XML Wrapper.

The OpenWMS features a METS data architecture which can be used in any METS-based or METS-compliant environment. It uses MODS as an underlying metadata schema for descriptive MD, NISO/AES standard for technical MD and PREMIS for source MD and rights MD. It outputs an XML wrapper for the METS components as a single object.

The data model is primarily an event-based data model, intended to document what happens to a resource at a specific time and place. Preservation and condition events, provenance events, rights events, and descriptive events document what happens to a resource throughout its lifecycle. Details of the events can include associated entities (such as an exhibit curator) and associated objects (such as an exhibit catalog).

This is a core application to ingest digital objects into the Institutional Fedora Repository (RUcore) developed at the Rutgers University Libraries. The cataloging module in OpenWMS is based on the Library of Congress version of OpenMIC.

### Major Features:

#### METS support

The OpenWMS features a METS data architecture which can be used in any METS-based or METS-compliant environment. It uses MODS as an underlying metadata schema for descriptive metadata, NISO/AES standard for technical metadata and PREMIS for source and rights metadata. It outputs an XML wrapper for the METS components as a single object for export.

#### Event-based data model

The OpenWMS data model is primarily an event-based data model, intended to document what happens to a resource at a specific time and place. Preservation and condition events, provenance events, rights events, and descriptive events document what happens to a resource throughout its lifecycle. Details of events can include associated entities (such as an exhibit curator) and associated objects (such as an exhibit catalog).

#### Resource management for analog and digital information formats

The bibliographic utility employs the source object, and the entity that is described in the METS source Source MD (source metadata), as the first generation of information controlled by the metadata-creating organization. This is often an analog object a photograph, a slide image of an art

work, or a print manuscript. Technical details of the digital object are captured in the METS TechMD (technical metadata) area of the Administrative metadata section, and successive modifications to the digital object are tracked in the bibliographic utility through the DigiProvMD (digital provenance metadata) area.

### Import and Export

The bibliographic utility supports batch import of metadata in XML and TXT format at present. This is easily expandable to other formats. It also supports batch export of metadata in METS and TXT format at present. This is also easily expandable to other formats.

### Customization capabilities

- **Utility Configuration**

The configuration module allows an organization to configure the metadata schema, set up required metadata element, setup system policies, and file handling policies according to their specific needs.

- **Templates**

Templates enable the user to increase both efficiency and accuracy when applying metadata to multiple objects in a collection. Templates allow an organization to select mandatory data elements and to automatically supply default values for elements in the metadata. Templates can be modified and proliferated as warranted for a digital project.

- **Vocabularies**

New values can be added to existing vocabulary lists, and new vocabulary lists themselves can be established in the bibliographic utility. Access to this feature is configurable by the organization in order to limit or expand authorization to control vocabularies based on the organization's local needs and staff resources.

### Digital File Handling

The OpenWMS supports digital files in all formats. It is delivered with Image Magic, an open source software, to create presentation formats from tiff images to jpeg images. The organizations can configure the archival file types and presentation file types according to their specific needs.

### Fedora IO

The Fedora IO module interacts with Fedora repository. The objects can be ingested into the Fedora repository and also can be brought back into the OpenWMS for metadata edits.

### **Sample Scenario(s) of Use:**

Library or archive with a repository (e.g., Fedora or DSpace repository)

A library or archive that is using a repository architecture can use the bibliographic utility to create and manage metadata. The bibliographic records in the MySQL database can be exported as METS and converted to your repositories native schema using third-party tools or XSLT transformations provided by you.

Library or archive with no repository

A library or archive with no current repository architecture can use the bibliographic utility as a "placeholder" for a full repository. Resources can be cataloged in the bibliographic utility and the cataloging can be maintained indefinitely in the MySQL database component of the utility. A copy of the bibliographic records in the MySQL database can be exported as METS and made available to an XML search and retrieval facility, such as Lucene or Zebra.

## **II. Using this Manual**

This manual describes how to use OpenWMS to create and maintain metadata for analog and digital objects such as photographs, moving images, etc. Note that you must have the OpenWMS software installed and configured before you can start using the OpenWMS application. Please see the OpenWMS installation and configuration manual for instructions to install and configure the software.

Section A provides an overview of the workflow in OpenWMS.

Section B provides a detailed workflow in OpenWMS.

Section C explains the object hierarchy in OpenWMS.

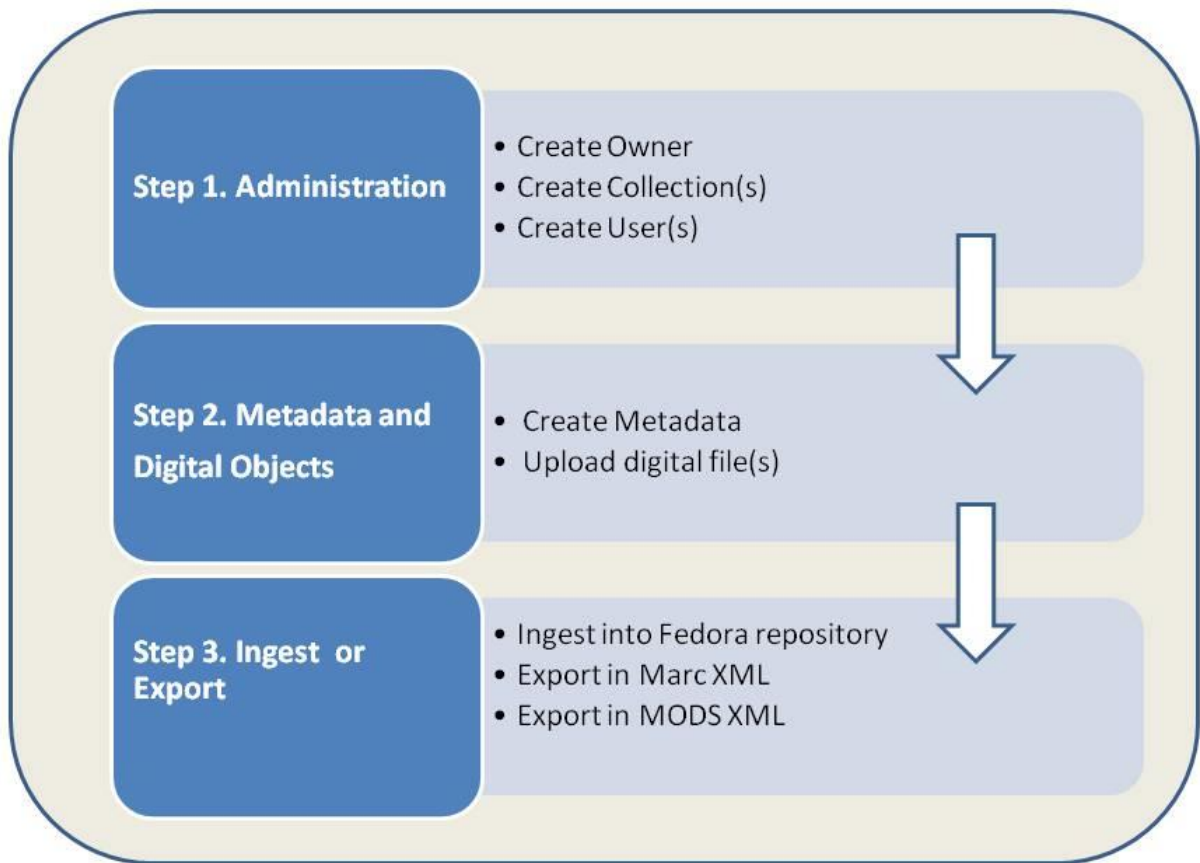
Section D provides details of objects types in OpenWMS.

Section E provides detailed step-by-step instructions to create and maintain digital objects.

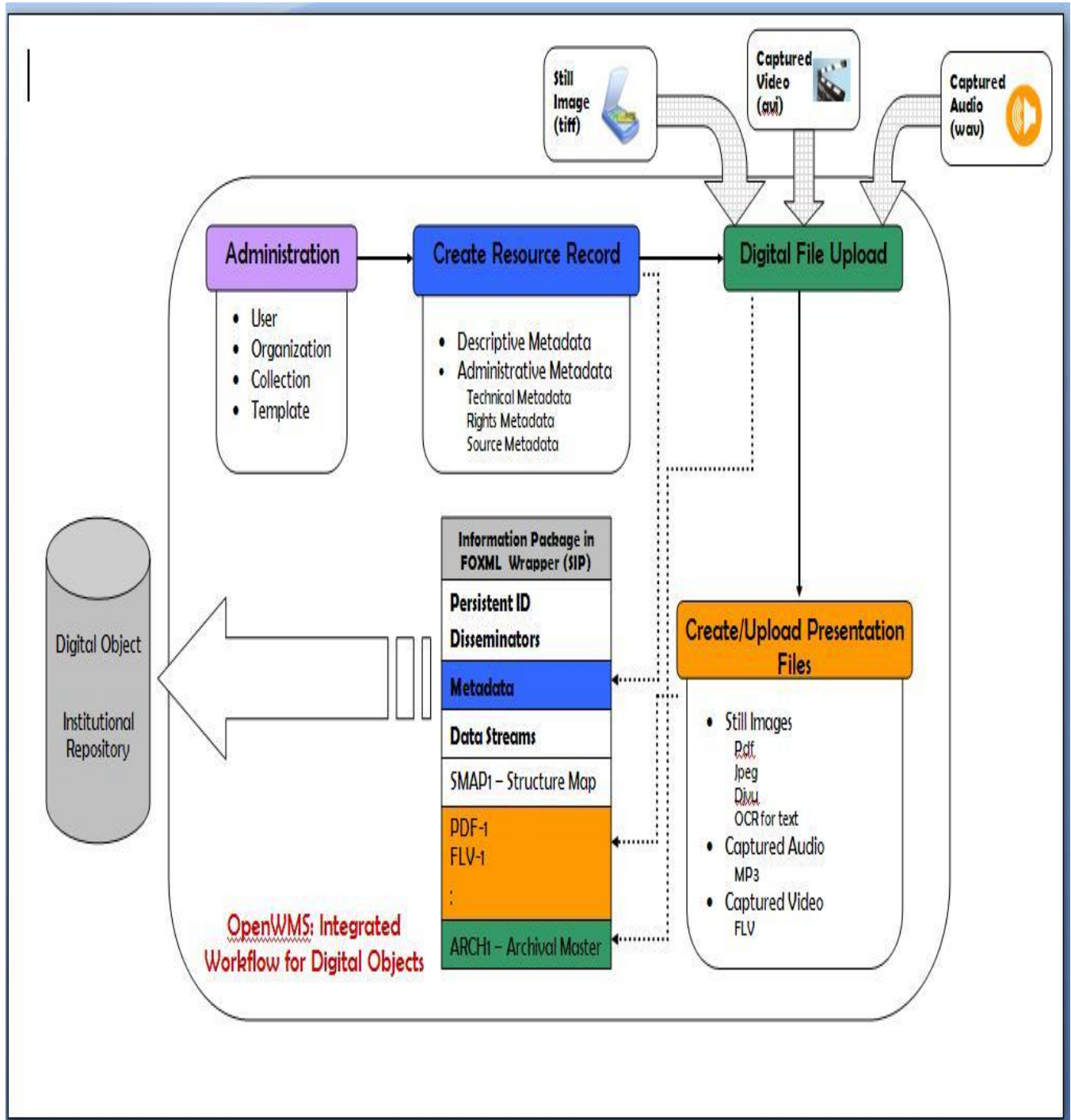
Section F provides detailed step-by-step instructions to perform other administrative tasks.

Section G provides a list of figures.

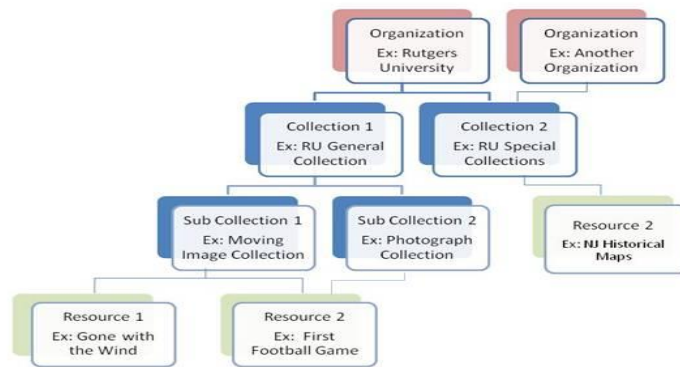
## Section A: Overview of the workflow in OpenWMS



## Section B: Detailed Workflow in OpenWMS



## Section C: Object Hierarchy in OpenWMS



## Section D: Object Types in OpenWMS

### 1. Collection Object

A collection object is a special object that contains the information about the organization/owner that holds the collection and the description of the collection.

### 2. Resource Object

A resource object is an item that contains information about the resource that is being digitized.

## Section E: Using OpenWMS

**Note 1: Recommended Browsers – Firefox, IE, and Chrome.**

**Note 2: Disable pop-up blocking.**

**Note 3: Enable Cookies.**

The OpenWMS application may be used to create and maintain metadata for analog and digital materials. It can be used as a standalone system or can be integrated with other repositories. There are three basic steps to create an object in OpenWMS:

- 1) **Administration:** Create User, Create Organization, and Create Collection
- 2) **Metadata and Digital Object:** Create Resource and upload digital file(s)
- 3) **Export:** Ingest into a Fedora repository or export records in XML

The OpenWMS uses collection structure to organize the resources. In order to create resources, a collection object must be created.

### 1. Administration

There should be only one organization/owner record for each organization. You may create as many collections as you need for each organization. In order to be able to create organization record, you must have “manage collections” privilege.

#### 1.1 User Management (Figures 1 to 5)

It is strongly recommended to create individual user accounts to be able to keep track of the work performed by users. The user information such as user name and email is written in the object XML in the Digital Provenance Metadata section. Each user account is associated with role(s). If a user account is not associated with a role, the user cannot log in. A user with super user privileges will be able to perform all the tasks in the OpenWMS. To create and manage users, the user account must have “manage users” privilege.

##### Create User

- i. Select **User Account** from the Digital Object Workflow Management System main screen
- ii. Select **Add** from the Registered Users screen.
- iii. Enter the following user information:

- a) Enter First Name, Last Name, Affiliation, Address (optional), Email, UserID, and password.
  - b) Retype ***password***.
- iv. Role Assignment section:
  - a. Select "***No***" to create a regular user account.
  - b. Select ***Add Collection***. Click on the collection you need to add to users account. Then close the window.
  - c. Select the ***role*** from the pull down list.
  - d. If you have to assign permissions to more than one collection, repeat steps b and c.
  - e. Click ***Commit role assignment***
  - f. If you want to remove collection from the list, you can click on the radio button in front of the collection name to remove it.
- v. Click ***Submit***.
- vi. Click ***Exit Account Manager*** to return to the Digital Object Workflow Management System main screen.

### **Edit User**

- i. Select ***User Account*** from the Digital Object Workflow Management System Main Screen.
- ii. Select the user from the Registered Users screen.
- iii. Select ***Edit***.
- iv. Edit user information.
- v. Click ***Submit***.
- vi. To delete a previously assigned role:
  - a. Select the *radio button in front of the collection of the role*.
  - b. Click ***OK*** to delete.
- vii. Click ***Exit Account Manager*** to return to the Digital Object Workflow Management System main screen

### **Delete User**

- i. Select ***User Account*** from the Digital Object Workflow Management System main screen.
- ii. Select user from the Registered Users screen.
- iii. Click ***Delete User***.

- iv. Click **OK**.
- v. Click **Exit Account Manager** to return to the Digital Object Workflow Management System main screen.

### **Create Role**

- i. Select **User Account** from the Digital Object Workflow Management System main screen.
- ii. Select **Define Roles**.
- iii. Select **WMS Utility** from the pull down list for module.
- iv. Enter role name and role description in the data entry box.
- v. Select **privilege(s)** associated with this role. Refer to Table 1 for details of privileges and permissions.
- vi. Click **Submit**.
- vii. Click **Exit Account Manager** to return to the Digital Object Workflow Management System main screen.

### **Edit Role**

- i. Select **User Account** from the Digital Object Workflow Management System main screen.
- ii. Select **Define Roles**.
- iii. Select the role from **Existing Role(s)** list.
- iv. Select **WMS Utility** from the pull down list for module.
- v. Select or unselect **privilege**. Refer to Table 1 for details of privileges and permissions.
- vi. Click **Submit**.
- vii. Click **Exit Account Manager** to return to the Digital Object Workflow Management System main screen.

### **Delete Role**

- i. Select **User Account** from the Digital Object Workflow Management System main screen.
- ii. Select **Define Roles**.
- iii. Select the role from **Existing Role(s)** list.
- iv. Click **Delete**.
- v. Click **Exit Account Manager** to return to the Digital Object Workflow Management System main screen.

Privileges	Permissions			
	User Management	Organization/Owner Management	Collection Management	Metadata and Digital Object Management
Super User	Add/Edit/Delete user; Add/Edit/Delete roles;	Add/Edit/Delete organization;	Add/Edit/View/Delete collection; Setup required elements; Add/Edit/View/Delete collection level template; Customize collection level metadata entry forms; Customize collection level controlled vocabulary terms;	Create or revise metadata mapping; Upload sample records; Check map; Batch import of metadata records; Batch export of metadata records; Add/Edit/Delete personal template; Add/Edit/View/Delete metadata record; Add/Edit/Delete controlled vocabulary terms;
Manage User	Add/Edit/Delete user; Add/Edit roles;			Add/Edit/View/Delete metadata record; Add/Edit/Delete personal template; Ingest objects into Fedora repository; Edit objects in Fedora repository;
Configure WMS	Edit username; Edit password		Customize collection level metadata entry forms; Set up system-wide required elements; Customize collection level required elements; Configure digital filehandling policies;	Add/Edit/View/Delete metadata record; Add/Edit/Delete personal template; Ingest objects into Fedora repository; Edit objects in Fedora repository;
Manage Collection	Edit username; Edit password	Edit organization	Add/Edit/View/Delete collection; Edit Collection Hierarchy; Resource management;	Add/Edit/View/Delete metadata record; Add/Edit/Delete personal template; Ingest objects into Fedora repository; Edit objects in Fedora repository; Export metadata records;
Configure Cataloging Utility	Edit username Edit password		Setup required elements; Add/Edit/View/Delete collection level template ;	
Modify CV and required elements	Edit username Edit password		Add/Edit/Delete controlled vocabulary terms;	Add/Edit/View/Delete metadata record; Add/Edit/Delete personal template; Ingest objects into Fedora repository; Edit objects in Fedora repository; Export metadata records;
Mapping	Edit username Edit password			Add/Edit/View/Delete metadata record; Add/Edit/Delete personal template; Ingest objects into Fedora repository; Edit objects in Fedora repository; Export metadata records;
Batch Import	Edit username Edit password			Add/Edit/View/Delete metadata record; Add/Edit/Delete personal template; Ingest objects into Fedora repository; Edit objects in Fedora repository; Export metadata records; Batch import of records;
Export	Edit username Edit password			Add/Edit/View/Delete metadata record; Add/Edit/Delete personal template; Ingest objects into Fedora repository; Edit objects in Fedora repository; Export metadata records; Batch import of records;
Metadata Cataloging	Edit username Edit password			Add/Edit/View/Delete personal template; Add/Edit/View/Delete metadata record; Ingest objects into Fedora repository; Edit objects in Fedora repository; Export metadata records;
View/Generate Reports	Not implemented			
Read Only	Not implemented			

Table 1: User Privileges and Permissions

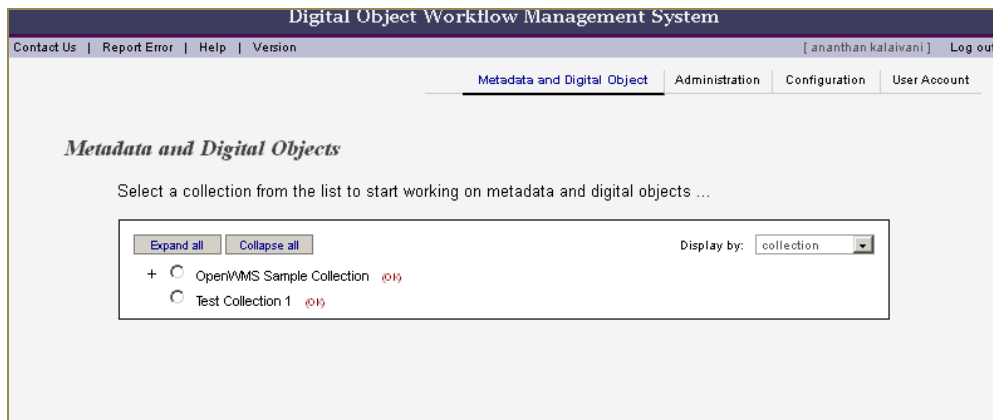


Figure 1: Digital Object Workflow Management System main screen

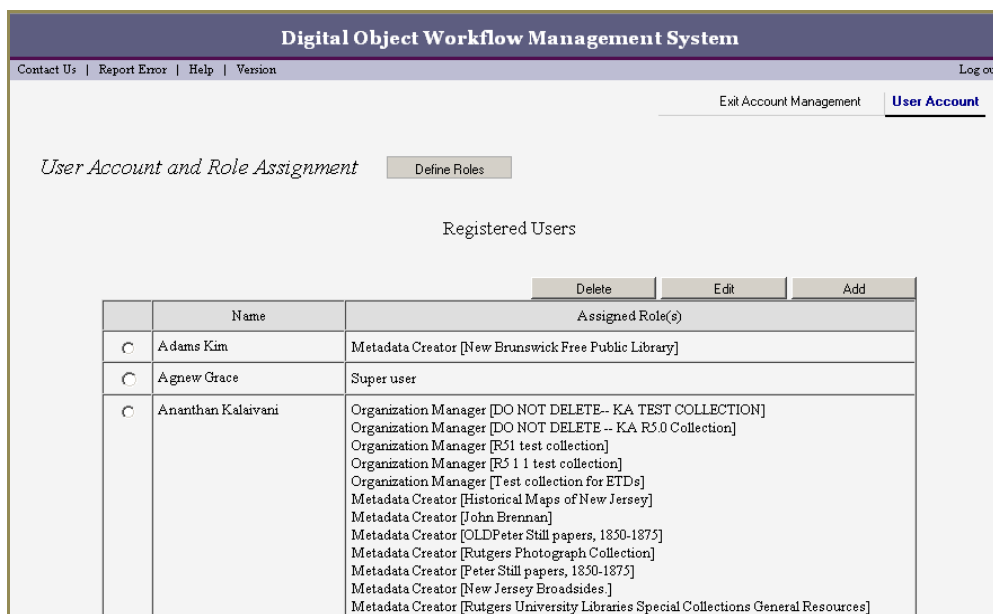


Figure 2: Registered Users screen

Digital Object Workflow Management System

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[Log out](#)

[Exit Account Management](#)
[User Account](#)

User Account

User Information

First Name:

Last Name:

Affiliation:

Address:

Email:

UserID (for login):

Password:

Re-type Password:

Role Assignment

SUPER USER?

☐ Yes

☐ No

Cancel

Submit

**Figure 3: Create User screen**

Role Assignment

SUPER USER?

☐ Yes

☒ No

Collection:

Add collection

Apply to this utility:

WMS Utility

Role:

Commit role assignment

Assigned Role(s)  
(Click radio to remove)

Collection	Role

Cancel

Submit

**Figure 4: Assign Role screen**

Exit Account Management [User Account](#)

*Define Role(s)*

**Role and Privilege Details**

Roles for this module: WMS Utility

Role Name:

Role Description:

Privilege:

- ☐ manage user
- ☐ manage collections
- ☐ configure WMS
- ☐ modify CV and required elements
- ☐ mapping
- ☐ batch import
- ☐ export
- ☐ metadata cataloging
- ☐ view/generate report
- ☐ read only

Existing Role(s):

<input type="radio"/>	Organization Manager
<input type="radio"/>	Collection Manager
<input type="radio"/>	Metadata Manager
<input type="radio"/>	ETD Coordinator
<input type="radio"/>	Batch Import and Export
<input type="radio"/>	Metadata Creator
<input type="radio"/>	ETD Manager

Back
Delete
Submit

**Figure 5: Define Role(s) screen**

## **1.2 Owner/Organization Management (Figures 6 to 9)**

### **Create Owner/Organization:**

- i. Select **Administration** from the Digital Object Workflow Management Main Screen.
- ii. Select **Owner**.
- iii. Select **Organization** (if the owner is a corporate body) **or Person** (if the owner is a person).
- iv. Select **Create New Organization or Create New Person**.
- v. If create New Organization is selected, enter Org ID, Organization Name, address, and contact information. You may use your organization's Marc Org ID, if you have one.
- vi. If Create New Person is selected, enter family name, given name and other relevant metadata.
- vii. Click **Save**.

### Edit Owner/Organization:

- i. Select **Administration** from the Digital Object Workflow Management Main Screen.
- ii. Select **Organization** (if the owner is a corporate body) **or Person** (if the owner is a person).
- iii. Select the **Organization or Person** you want to edit.
- iv. Click **Edit**.
- v. Change metadata and click **Save**.

### Delete Owner/Organization:

**Note: Deleting Organization will delete all the collections and resources belong to this organization.**

- i. Select **Administration** from the Digital Object Workflow Management Main Screen.
- ii. Select **Organization** (if the owner is a corporate body) **or Person** (if the owner is a person).
- iii. Select the **Organization or Person** to delete.
- iv. Click **Delete**.
- v. Click **OK** to confirm deletion.

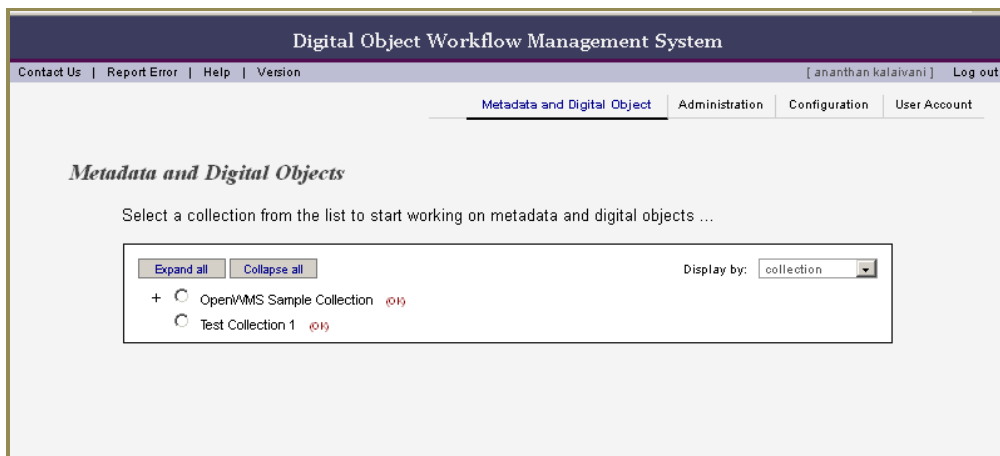


Figure 6: Digital Object Workflow Management main screen

**Digital Object Workflow Management System**

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[ Ananthan Kalaivani ] [Log out](#)

[Return to Metadata and Digital Object](#) | **[Administration](#)** | [Configuration](#) | [User Account](#)

*WMS Administration*

[Admin log](#)

[Collection](#) | [Resource](#) | **[Owner](#)** | [User Process](#) | [Message Board](#)

**OWNER MANAGEMENT**

[Organization](#) | [Person](#)

[Delete](#) | [Edit](#) | [Create New Organization](#)

Owner	
<input type="radio"/>	American Hungarian Foundation (New Brunswick, NJ)
<input type="radio"/>	American Labor Museum/Botto House National Landmark
<input type="radio"/>	Atlantic County Library System
<input type="radio"/>	Burlington County Historical Society
<input type="radio"/>	Chester Public Library
<input type="radio"/>	Clarence Dillon Public Library
<input type="radio"/>	Edison National Historic Site (West Orange, N.J.)
<input type="radio"/>	Egg Harbor City Historical Society
<input type="radio"/>	First Reformed Church of New Brunswick

**Figure 7: List of Organization/Owner screen**

[Admin log](#)

[Collection](#) | [Resource](#) | **[Owner](#)** | [User Process](#) | [Message Board](#)

**Enter/Edit Organization Information**

Organization ID: ID Source:

ID Value:

Organization Name:

Organization Address:

Organization URL:

CNRI ID:

Contact Person:

Name:

Telephone:

Email:

[EXIT](#) | [SAVE](#)

**Figure 8: Create/Edit Organization screen**

WMS Administration

Admin log

Collection Resource **Owner** User Process Message Board

Enter/Edit Personal Owner Information

Family Name:

Given Name:

Title:

Affiliation:

URL:

Display form:

Other info:

EXIT SAVE

Figure 9: Create/Edit Owner screen

## 1.3 Collection Management (Figures 10 to 22)

A collection object is a special object that contains information about the owner that holds the collection and the description of the collection. It keeps all the resources that belong to a collection together. The collection structure in OpenWMS is hierarchical and you may create as many collection objects for each owner.

### Create Parent (Top-level) Collection

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection**.
- iii. Select **Add New**.
- iv. A message window will appear prompting you to confirm the action. Click **OK**.
- v. Enter metadata for the collection. Enter a collection ID in the identifier field. **Do not enter any special characters, period, and "/" in ID value. At Rutgers, collection ID is supplied by the system.**
- vi. Click **Save**.

### Create Sub-collection

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection**.
- iii. Select the **Parent Collection**.
- iv. Select **Add New**.
- v. A message window will appear prompting you to confirm the action. Click **OK**.
- vi. Enter metadata for the collection. Enter a collection ID in the identifier field. **Do not enter any special characters, period, and "/" in ID value. At Rutgers, collection ID is supplied by the system.**
- vii. Click **Save**.

### Edit Collection/sub-collection

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection**.
- iii. Select the **Collection** to edit.
- iv. Click **Edit**.
- v. Make changes.
- vi. Click **Save**.

### Delete Collection/sub-collection

**Note: Deleting collection will delete all the resources belong to the collection.**

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection** to delete.
- iii. Click **Delete**.

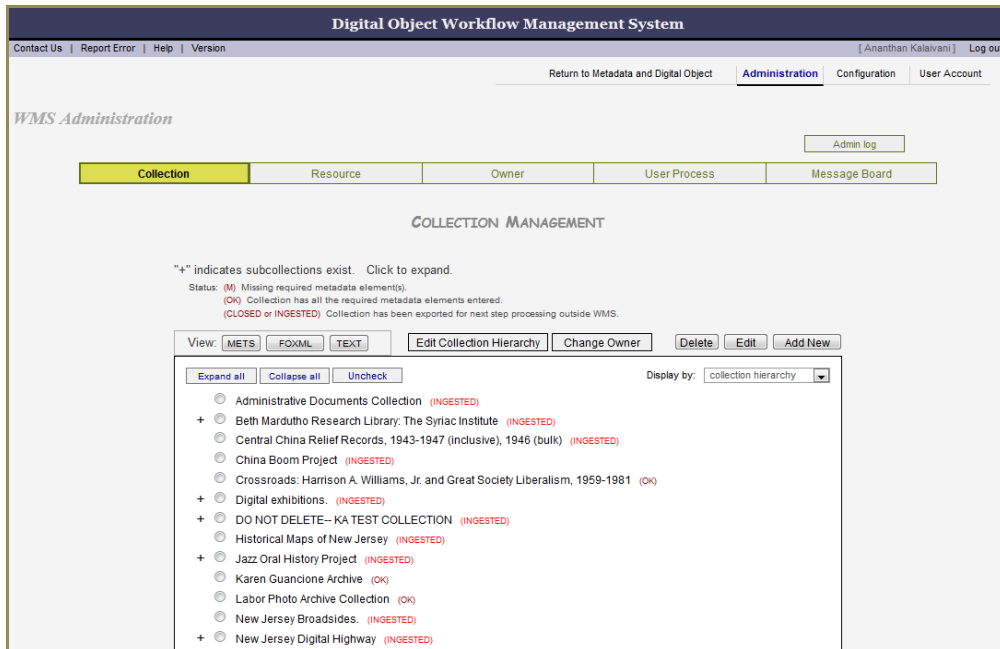


Figure 10: Digital Object Workflow Management System main screen

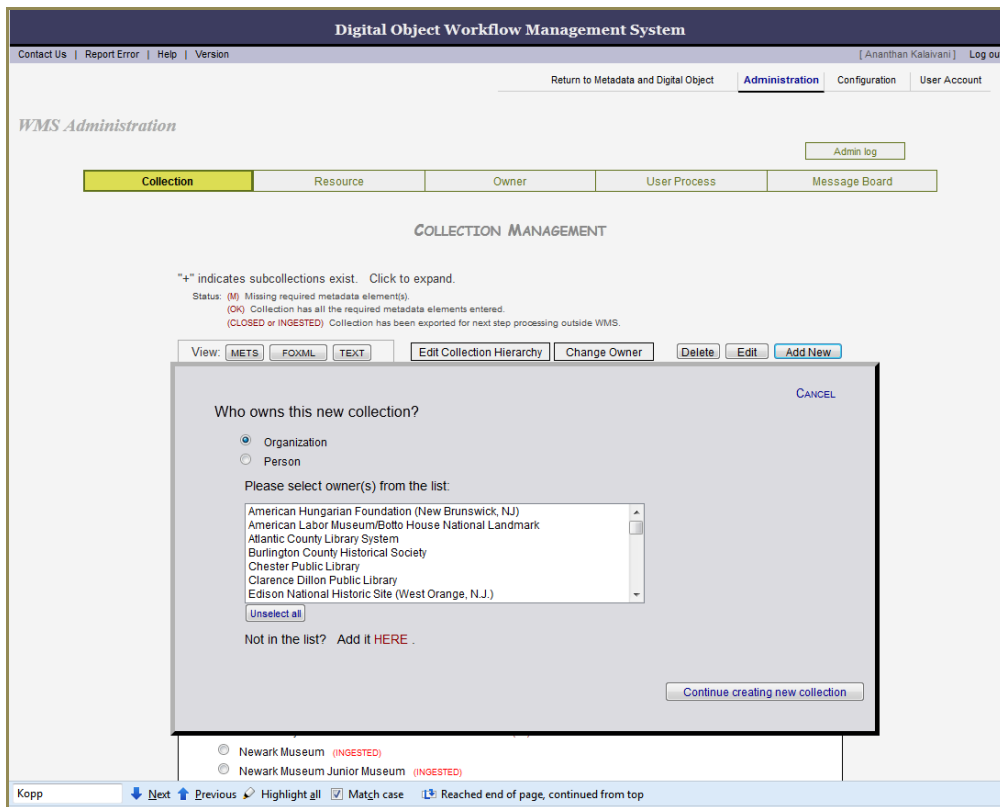


Figure 11: Create collection screen

The screenshot shows the 'Digital Object Workflow Management System' interface. At the top, there is a navigation bar with links: 'Contact Us', 'Report Error', 'Help', 'Version', '[ Ananthan Kalaivani ]', and 'Log out'. Below this, there are three buttons: 'Exit', 'VIEW ENTRIES', 'CLEAR ALL', and 'SAVE'. The main heading is 'COLLECTION METADATA'. There are three tabs: 'Descriptive MD' (selected), 'Source MD', and 'Rights MD'. A note states '( \* indicates required element )'. The 'Type of Item' section has a dropdown menu with 'Collection' selected. The 'Title Information' section has three input fields: 'Type:' (dropdown), 'Title:' (text box), and 'Subtitle:' (text box). A vertical 'NAVIGATOR' bar is on the right side.

Figure 12: Collection metadata entry form screen

## View Collection

There are three options available to view a collection record: METS, FOXML (Fedora Object XML for Fedora repositories), and TEXT.

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection** to view.
- iii. Select FOXML, METS, or TEXT.
- iv. Click 'X' to close pop-up the window.

```
File Edit View Help

<?xml version="1.0" encoding="utf-8"?>
<METS:mets xmlns:METS="http://www.loc.gov/METS/" xmlns:mods="http://www.loc.gov/mods/" >
  <METS:metsHdr ID="H1" CREATEDATE="2008-10-06T14:59:42" LASTMODDATE="2008-10-06T14:59:42" >
    <METS:dmdSec ID="DMD-1" GROUPID="" ADMID="AMD-1" CREATED="2008-09-19T11:22:09" STATUS="OK" >
      <METS:mdWrap MIMETYPE="text/xml" MDTYPE="OTHER" LABEL="MODS Metadata">
        <METS:xmlData>
          <mods:mods>
            <mods:typeOfResource>Collection</mods:typeOfResource>
            <mods:titleInfo ID="T-1" type="">
              <mods:title>ka test organization</mods:title>
            </mods:titleInfo>
            <mods:identifier type="collection">rucore00000000629</mods:identifier>
            <mods:name ID="NAME-1" type="personal">
              <mods:namePart type="family">KA</mods:namePart>
              <mods:namePart type="given">AK</mods:namePart>
              <mods:role>
                <mods:roleTerm type="text" authority="marcRelator">owner</mods:roleTerm>
              </mods:role>
            </mods:name>
            <mods:name ID="NAME-1" type="corporate">
              <mods:namePart>NjNbRU</mods:namePart>
              <mods:displayForm>Rutgers University</mods:displayForm>
            </mods:name>
          </mods:mods>
        </METS:xmlData>
      </METS:mdWrap>
    </METS:dmdSec>
  </METS:mets>
```

Figure 13: View collection record in METS XML

```
File Edit View Help
<?xml version="1.0" encoding="utf-8"?>
<foxml:digitalObject xmlns:foxml="info:fedora/fedora-system:def/foxml#">
  <foxml:objectProperties>
    <foxml:property NAME="http://www.w3.org/1999/02/22-rdf-syntax-ns#type" VALUE="FedoraObject"/>
    <foxml:property NAME="info:fedora/fedora-system:def/model#state" VALUE="A"/>
    <foxml:property NAME="info:fedora/fedora-system:def/model#label" VALUE=""/>
  </foxml:objectProperties>
  <foxml:datastream ID="DC" STATE="A" CONTROL_GROUP="X" VERSIONABLE="true">
    <foxml:datastreamVersion ID="DC.0" MIMETYPE="text/xml" LABEL="Default Dublin Core Record" CRI
      <foxml:xmlContent>
        <oai_dc:dc xmlns:oai_dc="http://www.openarchives.org/OAI/2.0/oai_dc/">
          <dc:title xmlns:dc="http://purl.org/dc/elements/1.1/">ka test organization</dc:title>
          <dc:contributor xmlns:dc="http://purl.org/dc/elements/1.1/">KA, AK (owner)</dc:contributor>
          <dc:type xmlns:dc="http://purl.org/dc/elements/1.1/">Collection</dc:type>
          <dc:identifier xmlns:dc="http://purl.org/dc/elements/1.1/">rucore0000000629</dc:identifier>
        </oai_dc:dc>
      </foxml:xmlContent>
    </foxml:datastreamVersion>
  </foxml:datastream>
  <foxml:datastream ID="DMD-1" STATE="A" CONTROL_GROUP="X" VERSIONABLE="true">
    <foxml:datastreamVersion ID="DMD-1.0" MIMETYPE="text/xml" LABEL="Descriptive Metadata (MODS)"
      <foxml:xmlContent>
        <mods:mods xmlns:mods="http://www.loc.gov/mods/">
          <mods:typeOfResource>Collection</mods:typeOfResource>
          <mods:titleInfo ID="T-1" type="">
            <mods:title>ka test organization</mods:title>
          </mods:titleInfo>
          <mods:identifier type="collection">rucore0000000629</mods:identifier>
          <mods:name ID="NAME-1" type="personal">
            <mods:namePart type="family">KA</mods:namePart>
            <mods:namePart type="given">AK</mods:namePart>
            <mods:role>
              <mods:roleTerm type="text" authority="marcRelator">owner</mods:roleTerm>
            </mods:role>
          </mods:name>
          <mods:name ID="NAME-1" type="corporate">
            <mods:namePart>NjNbRU</mods:namePart>
            <mods:displayForm>Rutgers University</mods:displayForm>
          </mods:name>
        </mods:mods>
      </foxml:xmlContent>
    </foxml:datastreamVersion>
  </foxml:datastream>
  <foxml:datastream ID="RELS-INT" STATE="A" CONTROL_GROUP="X" VERSIONABLE="false">
    <foxml:datastreamVersion ID="RELS-IINT.0" MIMETYPE="text/xml" LABEL="Datastream to preserve I
      <foxml:xmlContent>
        <rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#" />
      </foxml:xmlContent>
    </foxml:datastreamVersion>
  </foxml:datastream>
```

Figure 14: View collection record in FOXML

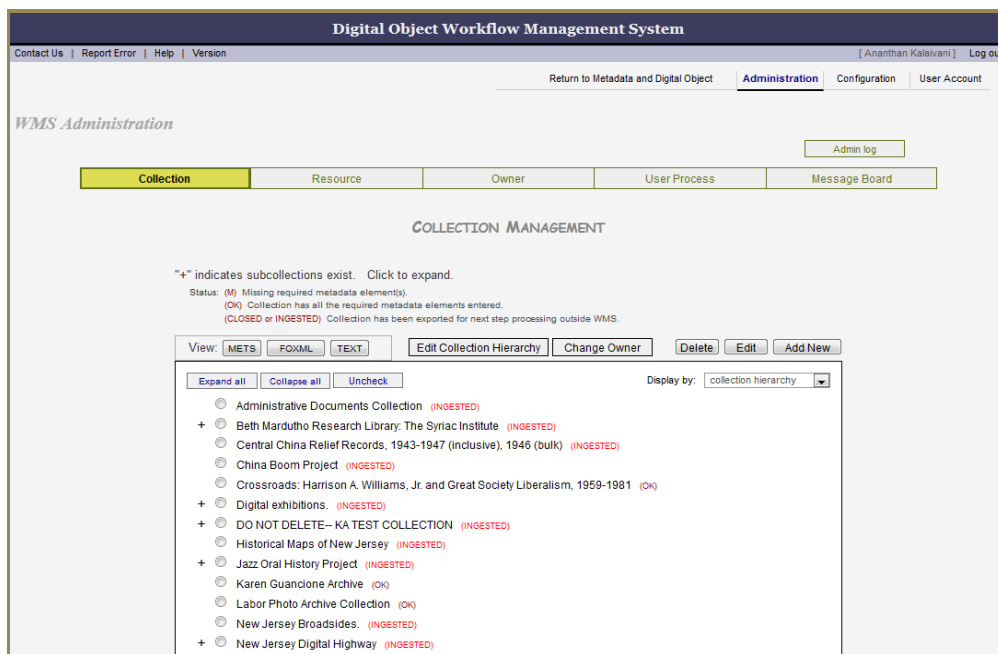
Metadata Entries	
Descriptive:	
Type Of Resource:	Text
Title Info:	
Main Title:	"Failed Censures: Ecclesiastical Regulation of Women's Clothing in Late Medieval Italy,"
Title Type:	main
Title Info:	
Main Title:	Medieval Clothing and Textiles
Title Type:	uniform
Personal Name:	
Family Name:	Izbicki
Given Name:	Thomas
Name Email:	Research & Instructional Svcs-Libraries, Rutgers University
Name Role:	
Role Type:	text
Role Authority:	marcrt
Name Role:	author
Genre:	
Genre Authority:	RULIB-FS
Genre:	articles
Note:	
Note Type:	peerReview
Note:	Peer reviewed
Note:	
Note Type:	JournalCitation
Note:	Izbicki, Thomas." "Failed Censures: Ecclesiastical Regulation of Women's Clothing in Late Medieval Italy," " Medieval Clothing and Textiles 5.(2009):37-53
Origin Info:	
Date Created:	
Created Encoding:	w3cdf
Created Qualifier:	exact
Key Date:	no
Date Created:	2009
Info Publisher:	Boydell Press
Abstract:	

Figure 15: View collection record in TEXT

## Edit Collection Hierarchy

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Click **Edit Collection Hierarchy** button.
- iii. Click on the radio button in front of the collection name to select collection that you want to move from.
- iv. Click on the radio button in front of the collection name to select collection that you want to move to.
- v. A message window will appear, click **OK** to move collection to destination collection.
- vi. A message window will appear prompting you to confirm the action. Click **OK** to commit change.
- vii. Click **Expand all** button to view the change.

**Note: Only one collection can be changed at a time.**



**Figure 16: Digital Object Workflow Management System main screen**

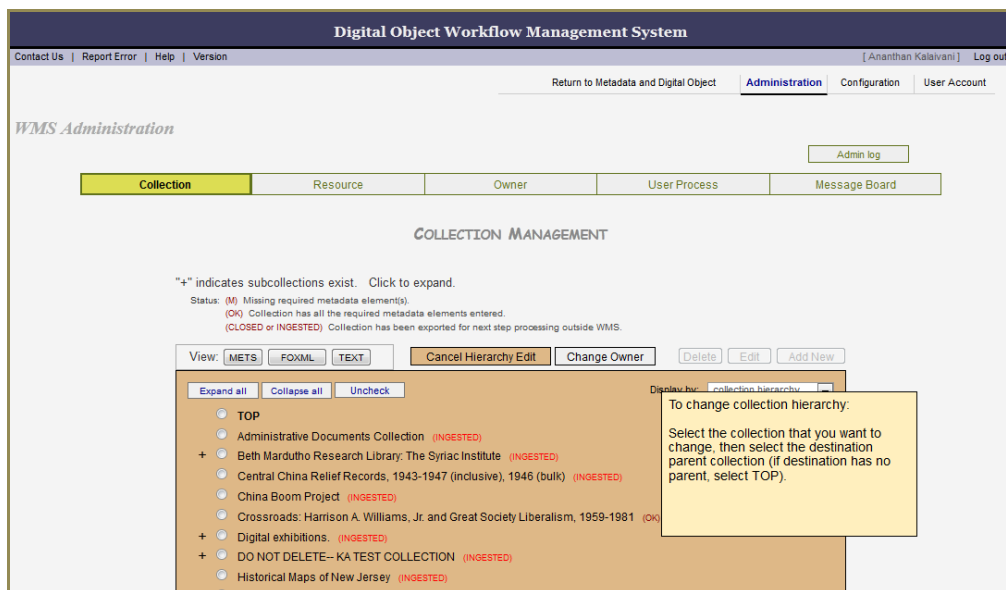


Figure 17: Edit collection hierarchy screen

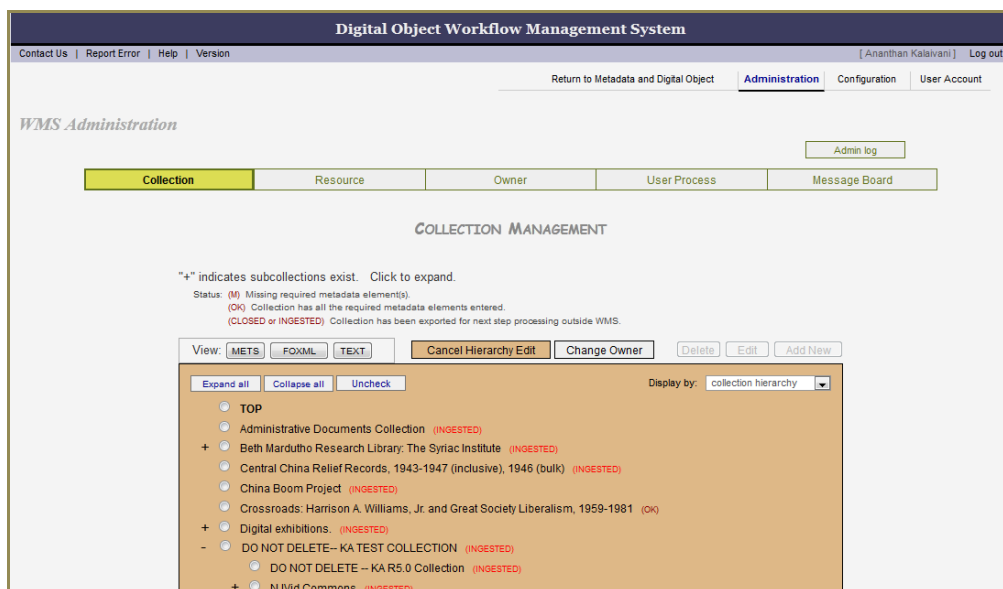


Figure 18: Edit collection hierarchy screen 2

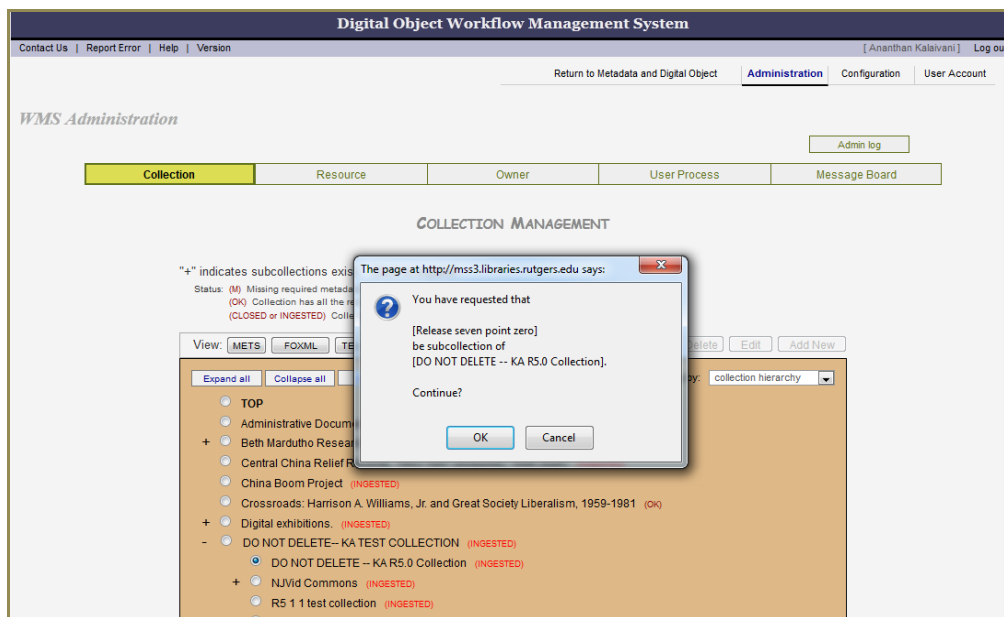


Figure 19: Edit collection hierarchy screen 3

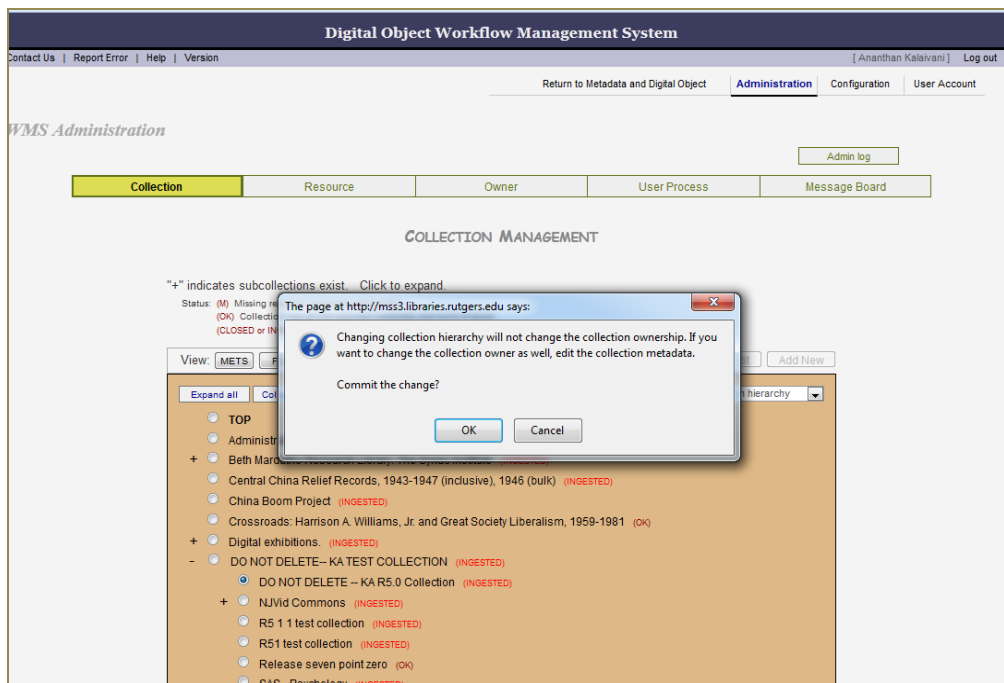


Figure 20: Edit collection hierarchy screen 4



Figure 21: Collection administration screen (before editing collection hierarchy)

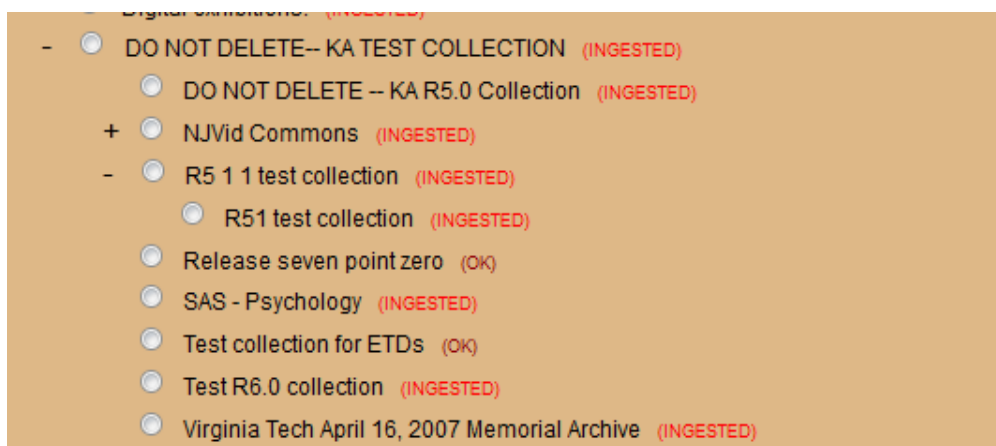


Figure 22: Collection administration screen (after editing collection hierarchy)

## 2. Metadata and digital objects

You must have a collection record created before you can start creating metadata record for resources. There are two ways to create metadata record in OpenWMS.

- 1) Create metadata manually.
- 2) Batch load metadata from an existing database.

## 2.1 Create metadata manually (Figures 23 to 30)

### Tips:

1. In some cases, all or many of the resources in a collection will share the same metadata. Some technical metadata and rights metadata might be identical. The template utility allows collection managers and metadata creators to create generic records that contain default data. When a template is enabled, this default data is added to the metadata record automatically when *Create New Record* is selected.
2. Templates can be enabled for the entire collection or for a specific resource. To create and to enable a template, refer to section 2.1.1.
3. To enable a template for a specific resource, click on *Template* at top of the metadata entry screen, select a template, and click *Apply*.

- i. Select **Metadata and Digital Object** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection** from the collection list.
- iii. Click **Create New Record** from the Metadata and Digital Objects tab.
- iv. Select the **Content Model**.
- v. Enter descriptive, source, technical and rights metadata. For detailed information about the metadata elements, please refer to Metadata Guides found online under OpenWMS project page.
- vi. Click **Save**.

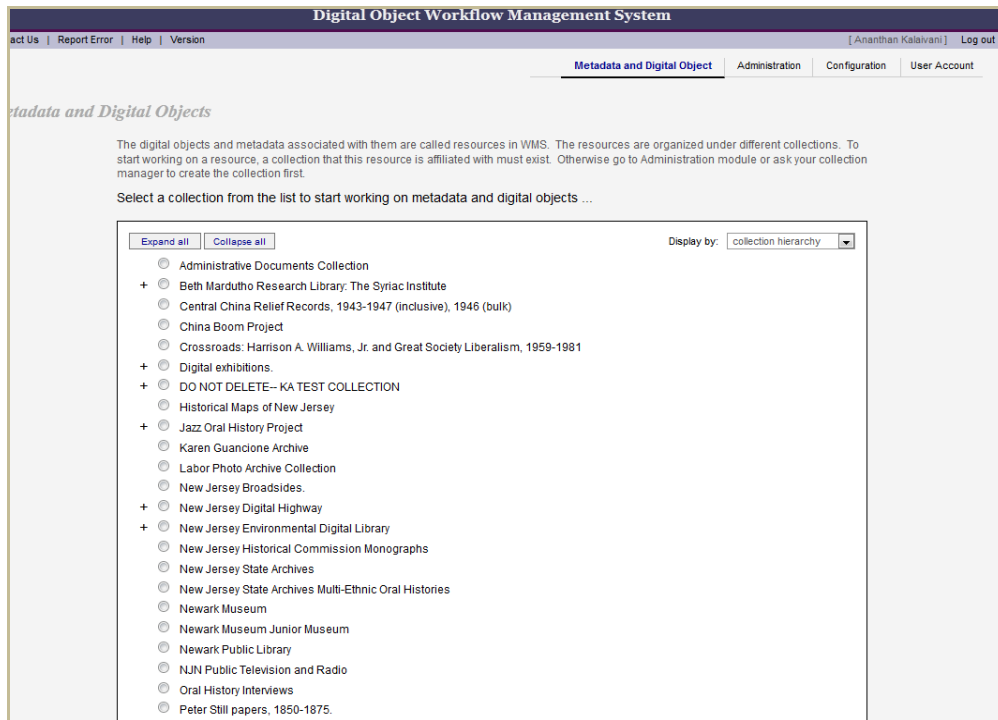
### Edit Metadata

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection** from the collection list.
- iii. Select the record you want to edit and click **Edit**.
- iv. Make changes.
- v. Click **Save**.

### Delete Metadata

- i. Select **Metadata and Digital Object** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection** from the collection list.
- iii. Select the record you want to delete.
- iv. Click **Delete**.

v. Click **OK**.



**Figure 23: Digital Workflow Management System main screen**

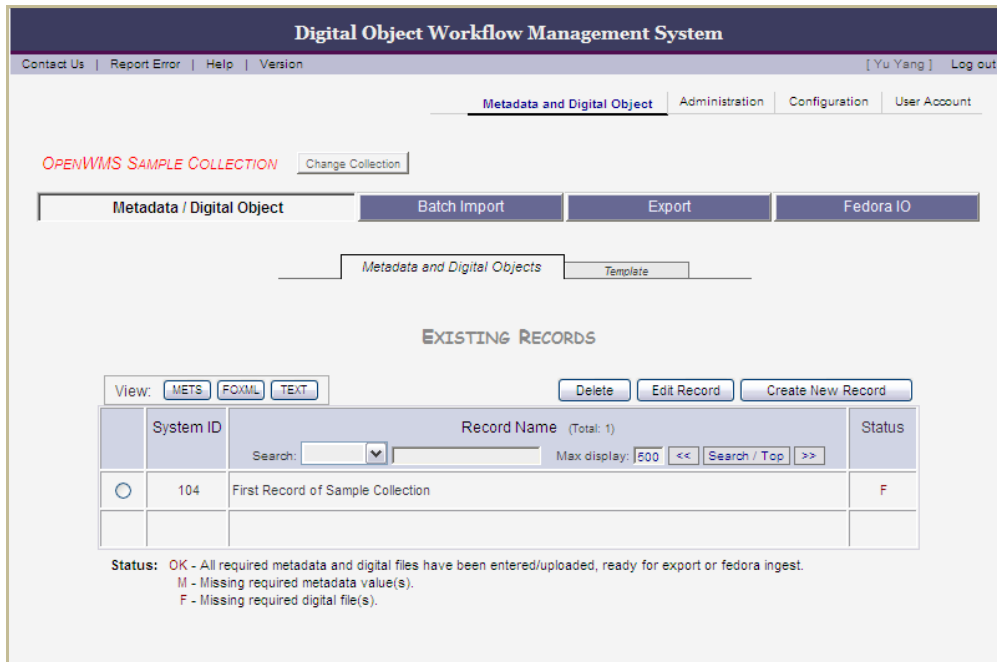


Figure 24: Existing metadata records screen

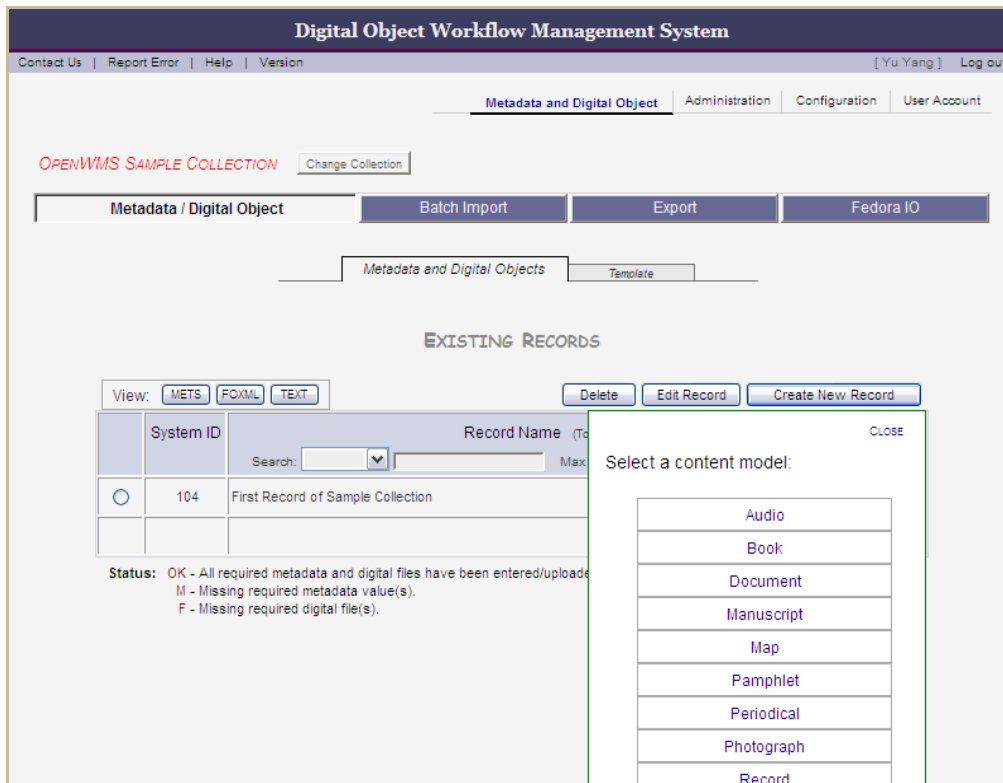


Figure 25: Create new record screen

Digital Object Workflow Management System

Contact Us | Report Error | Help | Version

[ Ananthan Kalaivani ]
Log out

EXIT
STRUCT MAP
DIGITAL FILE(S)

VIEW ENTRIES
CLEAR ALL
SAVE

- Collection: DO NOT DELETE-- KA TEST COLLECTION
- Type of item: Text
- Template: Not applied Apply Template

Descriptive MD

Source MD

Technical MD

Rights MD

( \* indicates required element )

Move required to top

Enter descriptive metadata for: 

Item 1

Type of Item

Type of Item:

Text

Title Information

Type: main

Title: test

Subtitle:

Part Name:

Part Number:

NAVIGATOR

Figure 26: Descriptive metadata entry form

## Metadata Screen Navigation Help

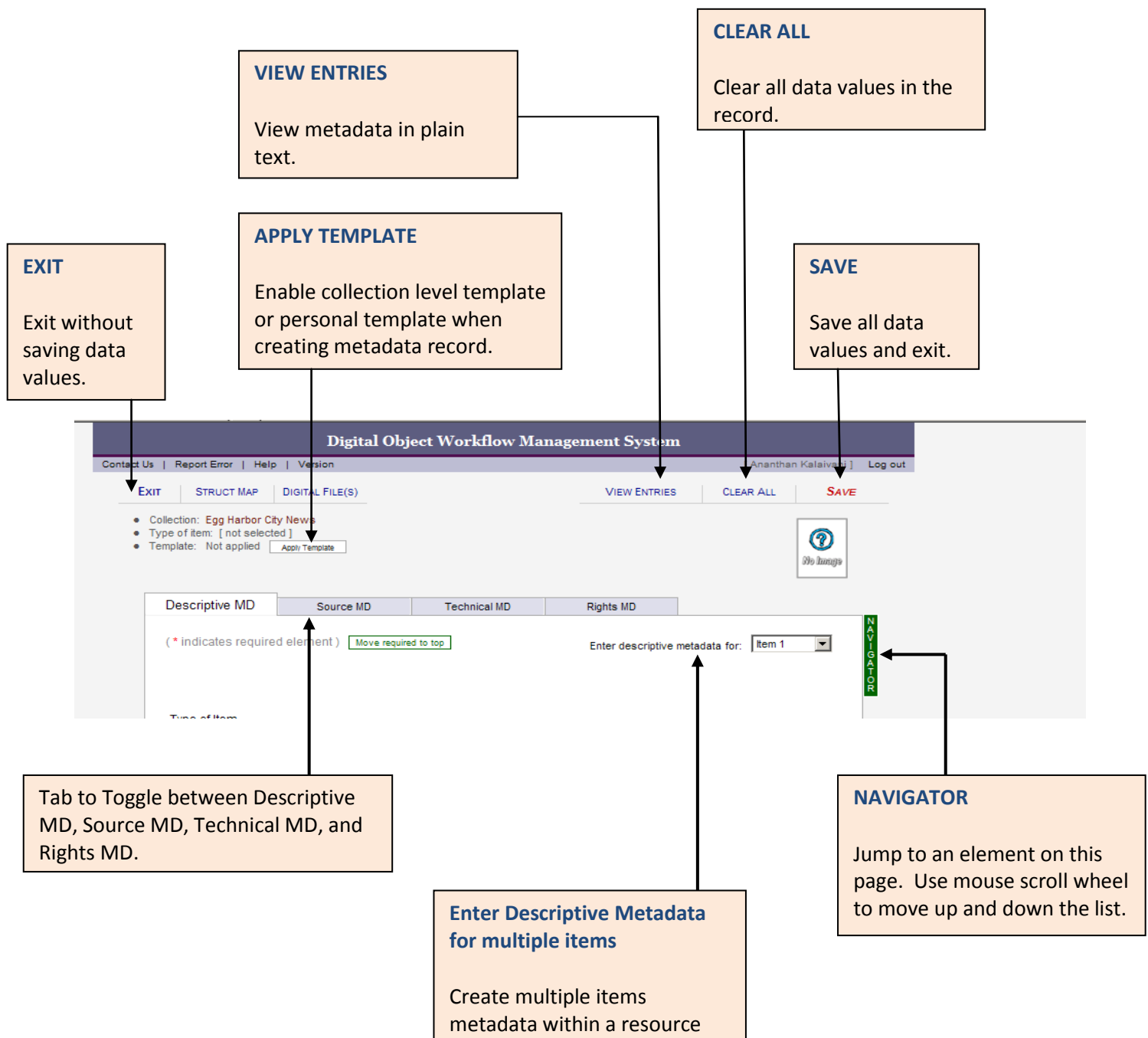


Figure 27: Screen navigation help

## View Metadata

- i. Select **Metadata and Digital Object** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection** from the Organization List.
- iii. Select the record.
- iv. Select **METS, FOXML or TEXT**.

```

- <METS:mets TYPE="FedoraObject" LABEL="" PROFILE="">
  <METS:metsHdr ID="H1" CREATEDATE="2011-07-11T09:33:59" LASTMODDATE="2011-07-11T09:33:59" RECORDSTATUS="A"/>
  - <METS:dmdSec ID="DMD-1" ADMID="AMD-1" CREATED="2011-06-14T13:18:27" STATUS="A">
    - <METS:mdWrap MIMETYPE="text/xml" MDTYPE="OTHER" LABEL="MODS Metadata">
      - <METS:xmlData>
        - <mods:mods>
          <mods:typeOfResource>Text</mods:typeOfResource>
          - <mods:titleInfo>
            - <mods:title>
              "Failed Censures: Ecclesiastical Regulation of Women's Clothing in Late Medieval Italy,"
            </mods:title>
          </mods:titleInfo>
          - <mods:name type="personal">
            <mods:namePart type="family">Izbicki</mods:namePart>
            <mods:namePart type="given">Thomas</mods:namePart>
          </mods:affiliation>
            Research & Instructional Svcs-Libraries, Rutgers University
          </mods:affiliation>
          - <mods:role>
            <mods:roleTerm type="text" authority="marcrt">author</mods:roleTerm>
          </mods:role>
          <mods:name>
            <mods:genre authority="RULIB-FS">articles</mods:genre>
            <mods:note type="peerReview">Peer reviewed</mods:note>
          </mods:originInfo>
            <mods:dateCreated encoding="w3cdtf" qualifier="exact" keyDate="no">2009</mods:dateCreated>
            <mods:publisher>Boydell Press</mods:publisher>
          </mods:originInfo>
          - <mods:abstract>
            Churchmen in the late thirteenth and early fourteenth centuries tried to regulate the costume of Italian women. These efforts failed, and regulation was largely left thereafter to civic authorities.
          </mods:abstract>
          - <mods:language>
            <mods:languageTerm type="text" authority="ISO 639-3:2007">English</mods:languageTerm>
          </mods:language>
          - <mods:physicalDescription>
            <mods:internetMediaType>application/pdf</mods:internetMediaType>
          </mods:physicalDescription>
          - <mods:subject authority="local">

```

Figure 28: View resource metadata in METS

```

- <foxml:digitalObject VERSION="1.1" PID="fedpid:0000" FEDORA_URI="info:fedora/fedpid:0000">
- <foxml:objectProperties>
  <foxml:property NAME="info:fedora/fedora-system:def/model#state" VALUE="A"/>
  <foxml:property NAME="info:fedora/fedora-system:def/model#label" VALUE="rucore30105900001"/>
</foxml:objectProperties>
- <foxml:datastream ID="DC" STATE="A" CONTROL_GROUP="X" VERSIONABLE="true">
- <foxml:datastreamVersion ID="DC.0" MIMETYPE="text/xml" LABEL="Default Dublin Core Record" CREATED="2011-07-11T09:35:06"
  FORMAT_URI="http://www.openarchives.org/OAI/2.0/oai_dc/">
- <foxml:xmlContent>
- <oai_dc:dc>
- <dc:title>
  "Failed Censures: Ecclesiastical Regulation of Women's Clothing in Late Medieval Italy,"
</dc:title>
- <dc:subject>
  ClothingDressSumptuary LawMedieval churchMedieval canon law
</dc:subject>
- <dc:description>
  Churchmen in the late thirteenth and early fourteenth centuries tried to regulate the costume of Italian women. These efforts failed, and regulation was
  largely left thereafter to civic authorities.
</dc:description>
<dc:description>Peer reviewed</dc:description>
- <dc:description>
  Izbicki, Thomas. "Failed Censures: Ecclesiastical Regulation of Women's Clothing in Late Medieval Italy,". "Medieval Clothing and Textiles
  5. (2009):37-53
</dc:description>
<dc:publisher>Boydell Press</dc:publisher>
<dc:contributor>Izbicki, Thomas (author)</dc:contributor>
<dc:date>2009</dc:date>
<dc:type>Text</dc:type>
<dc:type>articles</dc:type>
<dc:format>application/pdf</dc:format>
<dc:format>application/pdf</dc:format>
- <dc:identifier>
  http://hdl.rutgers.edu/1782.1/rucore30105900001.Manuscript.000060962
</dc:identifier>
<dc:language> English </dc:language>
- <dc:relation>
  http://www.boydellandbrewer.com/store/viewItem.asp?idProduct=10197
</dc:relation>

```

Figure 29: View resource metadata in FOXML

Metadata Entries	
<b>Descriptive:</b>	
<b>Type Of Resource:</b>	Text
<b>Title Info:</b>	
<b>Main Title:</b>	"Failed Censures: Ecclesiastical Regulation of Women's Clothing in Late Medieval Italy,"
<b>Title Type:</b>	main
<b>Title Info:</b>	
<b>Main Title:</b>	Medieval Clothing and Textiles
<b>Title Type:</b>	uniform
<b>Personal Name:</b>	
<b>Family Name:</b>	Izbicki
<b>Given Name:</b>	Thomas
<b>Name Email:</b>	Research & Instructional Svcs-Libraries, Rutgers University
<b>Name Role:</b>	
<b>Role Type:</b>	text
<b>Role Authority:</b>	marcrt
<b>Name Role:</b>	author
<b>Genre:</b>	
<b>Genre Authority:</b>	RULIB-FS
<b>Genre:</b>	articles
<b>Note:</b>	
<b>Note Type:</b>	peerReview
<b>Note:</b>	Peer reviewed
<b>Note:</b>	
<b>Note Type:</b>	JournalCitation
<b>Note:</b>	Izbicki, Thomas "Failed Censures: Ecclesiastical Regulation of Women's Clothing in Late Medieval Italy," Medieval Clothing and Textiles 5 (2009):37-33
<b>Origin Info:</b>	
<b>Date Created:</b>	
<b>Created Encoding:</b>	w3cdtf
<b>Created Qualifier:</b>	exact
<b>Key Date:</b>	no
<b>Date Created:</b>	2009
<b>Info Publisher:</b>	Boydell Press
<b>Abstract:</b>	
<b>Abstract:</b>	Churchmen in the late thirteenth and early fourteenth centuries tried to regulate the costume of Italian women. These efforts failed, and regulation was largely left thereafter to civic authorities.
<b>Language:</b>	
<b>Term Authority:</b>	ISO 639-3:2007
<b>Language Term:</b>	English
<b>Term Type:</b>	text
<b>Physical Description:</b>	

Figure 30: View resource metadata in TEXT

## 2.2 Create Template (Figures 31 to 43)

You can create two different templates in the OpenWMS -- collection level and user level. A collection level template can be applied to all resources in the collection. To create a collection level template, the user must have "Configure Cataloging Utility" permission. If the collection level template is set as a default template, it is applied to the metadata record automatically when "Create New Record" is selected. If it is not set as a default template, metadata creators can enable the template at the time the metadata record is created.

User level templates are created by metadata creators. A template created at this level is available to the creator of the template only. If a user level template is set as a default template, it is applied to the metadata record automatically when "Create New Record" is selected. If it is not set as a default template, metadata creators can enable the template at the time the metadata record is created.

## 2.2.1 Collection level template

### Create template

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management main screen.
- ii. Select the **collection** from the collection list.
- iii. Select **Template**.
- iv. Select Create/Edit template for: **Current Collection**.
- v. Select **Create New Template**.
- vi. Select the **Content Model**. You will get a screen similar to *Create New Record* screen.
- vii. You may either create a new template or use an existing collection template record to create a new template.
  - a) To create a new template:
    - Select **main** for Title Information Type.
    - Enter Title for the template.
    - Enter metadata in the metadata elements.
    - Click **Save**.
    - If you want to save this template as a default template, click **Set/unset Default** button from the Existing Templates screen.
  - b) To create a new template using an existing metadata record:
    - Select **Use Existing Metadata**.
    - Select the metadata base: **resource or collection level template or user level template**
    - Select **the resource**.
    - Click **OK**.
    - Select **main** for Title Information Type.
    - Enter Title for the template.
    - Click **Save**.
    - If you want to save this template as a default template, click **Set Default button**.

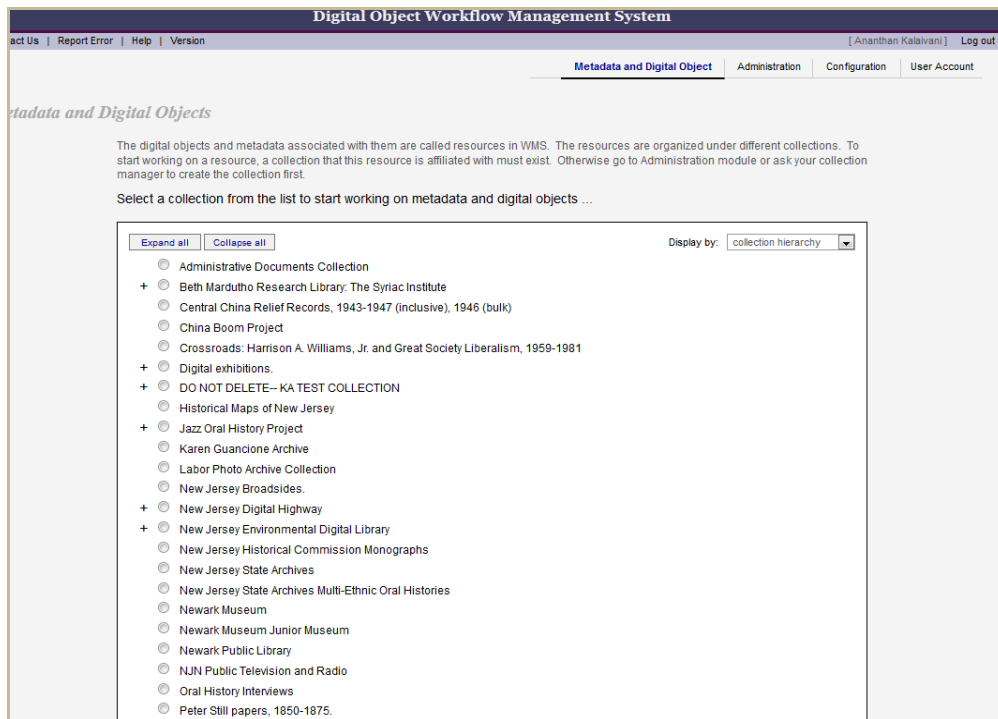
### Edit template:

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management main screen.
- ii. Select the **collection** from the collection list.

- iii. Select **Template**.
- iv. Select the **template** from the Template List.
- v. Click **Edit Template**.
- vi. Make changes.
- vii. Click **Save**.

### Delete template:

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management main screen.
- ii. Select the **collection** from the Collection List.
- iii. Select **Template**.
- iv. Select a **template** from the Template List.
- v. Click **Delete**.



**Figure 31: Digital Workflow Management System screen**

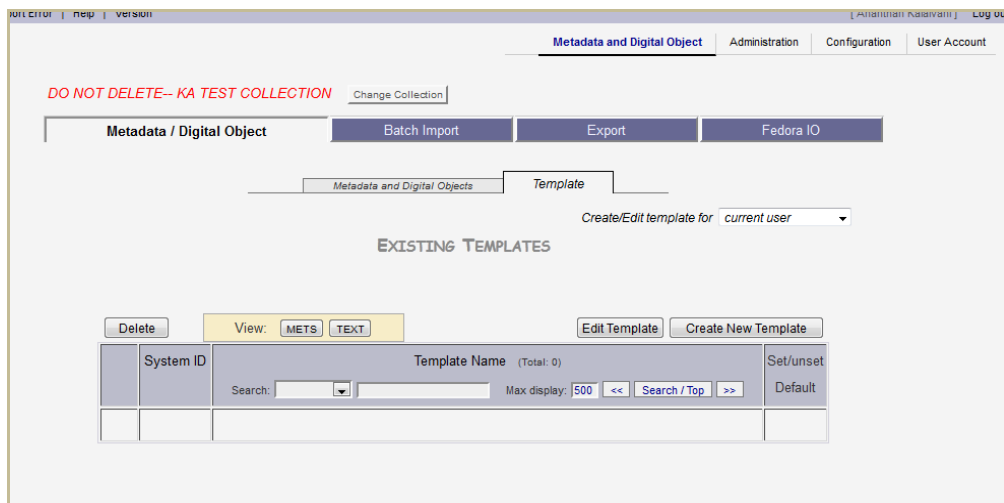


Figure 32: Existing templates screen

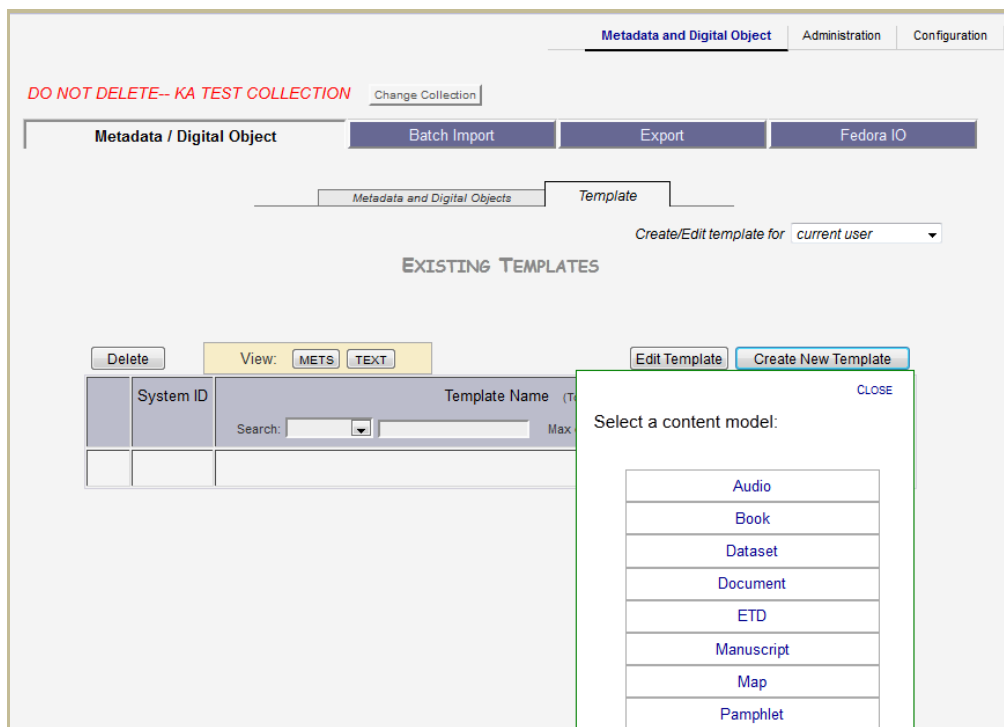


Figure 33: Create new template screen

EXIT    STRUCT MAP    USE EXISTING METADATA    VIEW ENTRIES    CLEAR ALL    **SAVE**

### METADATA TEMPLATE

Descriptive MD    Source MD    Technical MD    Rights MD

Enter descriptive metadata for: Item 1

\* indicates required element (click [here](#) to move all required to top)

Type of Item

Type of Item:

Title Information

Type:

Title:

Subtitle:

Part Name:

Part Number:

Nonsort:

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**Figure 34: Template metadata entry screen**

The metadata base is a: resource

### Existing Resource

[from this collection: DO NOT DELETE-- KA TEST COLLECTION] Change

	Resource Name	Created Date
<input type="radio"/>	hierarchical geography test	2012-02-22
<input type="radio"/>	OCR test	2011-10-17
<input type="radio"/>	Ron's article: test for search XML	2012-02-16
<input type="radio"/>	Ron's article: test for search XML test 2	2012-02-16
<input type="radio"/>	Ron's article: test for search XML test 3	2012-02-16
<input type="radio"/>	ters	2013-03-05
<input type="radio"/>	test	2011-05-26
<input type="radio"/>	test	2011-06-13
<input type="radio"/>	test	2012-03-09
<input type="radio"/>	test	2012-04-12
<input type="radio"/>	test	2012-11-16
<input type="radio"/>	test for browser session timeout	2012-02-23
<input type="radio"/>	Test for OCR XML	2012-05-22
<input type="radio"/>	test for techMD	2013-03-05
<input type="radio"/>	test pdf server	2011-07-20
<input type="radio"/>	test photograph	2011-07-20
<input type="radio"/>	test R5.2.1	2011-09-26
<input type="radio"/>	test R5.2.1 ingest	2011-09-26
<input type="radio"/>	Test two for release six point one	2012-01-30

NAVIGATOR

zotero

**Figure 35: Existing templates screen**

## View template

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management main screen.
- ii. Select the **collection** from the collection list.
- iii. Select **Template**.
- iv. Select the **template** from the Template List.
- v. Click **METS or TEXT**.

```
<?xml version="1.0" encoding="utf-8"?>
<METS:mets xmlns:METS="http://www.loc.gov/METS/" xmlns:mods="http://www.loc.gov/mods/" xml
  <METS:metsHdr ID="H1" CREATEDATE="2008-11-21T14:38:46" LASTMODDATE="2008-11-21T14:38:46"
  <METS:dmdSec ID="DMD-1" GROUPID="" ADMID="AMD-1" CREATED="2008-11-21T14:14:16" STATUS="A
  <METS:mdWrap MIMETYPE="text/xml" MDTYPE="OTHER" LABEL="MODS Metadata">
    <METS:xmlData>
      <mods:mods>
        <mods:typeOfResource>MovingImage</mods:typeOfResource>
        <mods:titleInfo ID="T-1" type="">
          <mods:title>NYU Class template</mods:title>
        </mods:titleInfo>
        <mods:identifier type="micUCRecordID">1234</mods:identifier>
        <mods:language>
          <mods:languageTerm authority="local"></mods:languageTerm>
        </mods:language>
        <mods:genre authority="MIGFG-form">Animation</mods:genre>
        <mods:subject ID="SBJ-1" authority="aat"></mods:subject>
        <mods:targetAudience authority="GEM">Higher education</mods:targetAudience>
      </mods:mods>
    </METS:xmlData>
  </METS:mdWrap>
</METS:dmdSec>
</METS:mets>
```

Figure 36: View template metadata in METS

### Metadata Entries

**Descriptive:**

**Type Of Resource:** MovingImage

**Title Info:**  
**Main Title:** NYU Class template

**Identifier:**  
**Type:** micUCRecordID  
**Identifier:** 1234

**Language:**  
**Term Authority:** local

**Genre:**  
**Genre Authority:** MIGFG-form  
**Genre:** Animation

**Target Audience:**  
**Audience Authority:** GEM  
**Target Audience:** Higher education

---

[Close](#)

Figure 37: View template metadata in TEXT

## 2.2.2 User level template

### Create template

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management main screen.
- ii. Select the collection from the Collection List.
- iii. Select **Template**.
- iv. Select Create/Edit template for: **Current User**.
- v. Select **Create New Template**.
- vi. Select a **Content Model**. You will get a screen similar to *Create New Record* screen.
- vii. You may either create a new template or use an existing metadata record as a new template.
  - a) To create a new template:
    - Select **main** for Title Information Type.
    - Enter a Title for the template.
    - Enter metadata.
    - Click **Save**.
    - If you want to save this template as a default template, click **Set Default** button.

- b) To create a new template using an existing metadata record: (see figure 2.1.1.13)
- Select **Use Existing Metadata**.
  - Select the metadata base: resource or collection level template or user level template.
  - Click **OK**.
  - Select **main** for Title Information Type.
  - Enter a Title for the template.
  - Click **Save**.
  - If you want to save this template as a default template, click **Set Default** button.

**Edit template:**

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management main screen.
- ii. Select the collection from the Collection List.
- iii. Select **Template**.
- iv. Select Create/Edit template for: **Current User**.
- v. Select the template.
- vi. Click **Edit**.
- vii. Make changes.
- viii. Click **Save**.

**Delete template:**

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management main screen.
- ii. Select the collection from the Collection List.
- iii. Select **Template**.
- iv. Select **Current User**.
- v. Select the template.
- vi. Click **Delete**.
- vii. Click **OK**.

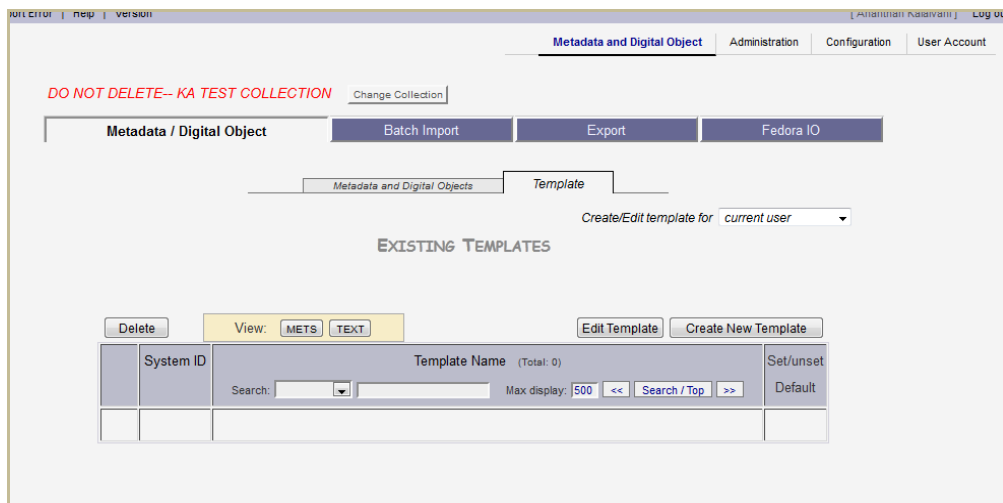


Figure 38: Existing template screen

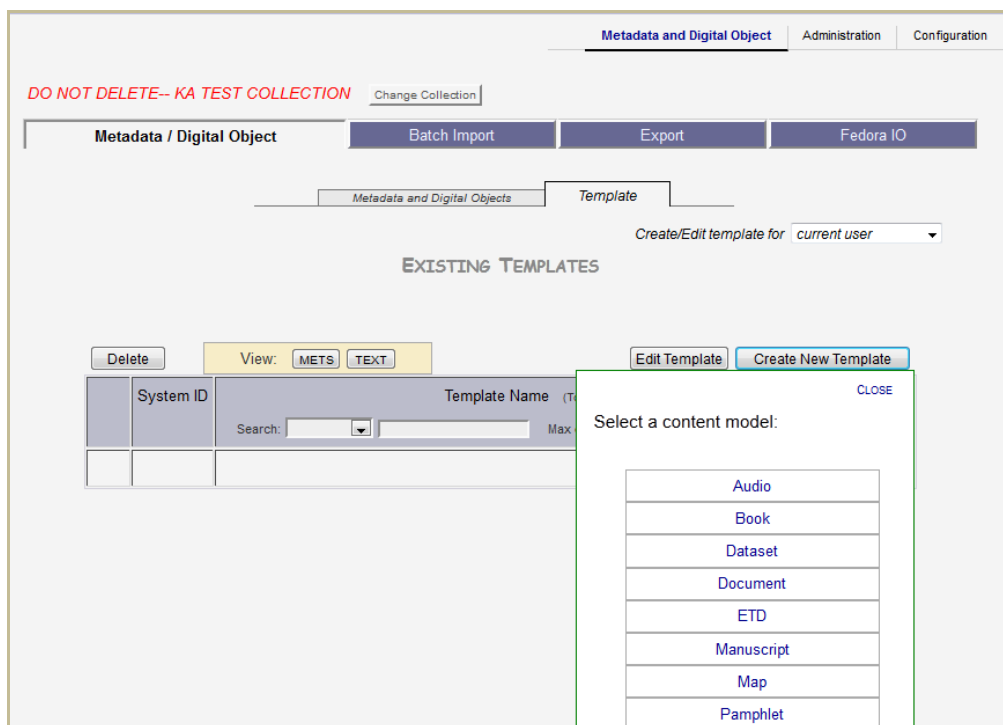


Figure 39: Create a new user level template

EXIT STRUCT MAP USE EXISTING METADATA VIEW ENTRIES CLEAR ALL SAVE

METADATA TEMPLATE

Descriptive MD Source MD Technical MD Rights MD

Enter descriptive metadata for: Item 1

\* indicates required element (click [here](#) to move all required to top)

Type of Item

Type of Item: [dropdown]

Title Information

Type: [dropdown]

Title: [text input]

Subtitle: [text input]

Part Name: [text input]

Part Number: [text input]

Nonsort: [text input]

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Figure 40: User level template metadata entry form

The metadata base is a: resource

Existing Resource

[from this collection: DO NOT DELETE-- KA TEST COLLECTION] Change

	Resource Name	Created Date
<input type="radio"/>	hierarchical geography test	2012-02-22
<input type="radio"/>	OCR test	2011-10-17
<input type="radio"/>	Ron's article: test for search XML	2012-02-16
<input type="radio"/>	Ron's article: test for search XML test 2	2012-02-16
<input type="radio"/>	Ron's article: test for search XML test 3	2012-02-16
<input type="radio"/>	ters	2013-03-05
<input type="radio"/>	test	2011-05-26
<input type="radio"/>	test	2011-06-13
<input type="radio"/>	test	2012-03-09
<input type="radio"/>	test	2012-04-12
<input type="radio"/>	test	2012-11-16
<input type="radio"/>	test for browser session timeout	2012-02-23
<input type="radio"/>	Test for OCR XML	2012-05-22
<input type="radio"/>	test for techMD	2013-03-05
<input type="radio"/>	test pdf server	2011-07-20
<input type="radio"/>	test photograph	2011-07-20
<input type="radio"/>	test R5.2.1	2011-09-26
<input type="radio"/>	test R5.2.1 ingest	2011-09-26
<input type="radio"/>	Test two for release six point one	2012-01-30

NAVIGATOR

zotero

Figure 41: Create user level template using existing resource

### View template:

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management main screen.
- ii. Select the collection from the Collection List.
- iii. Select **Template**.
- iv. Select **Current User or Current Collection**.
- v. Select the template.
- vi. Click **METS to view in XML or Text** to view in plain text.

```
<?xml version="1.0" encoding="utf-8"?>
<METS:mets xmlns:METS="http://www.loc.gov/METS/" xmlns:mods="http://www.loc.gov/mods/" xml
  <METS:metsHdr ID="H1" CREATEDATE="2008-11-21T14:38:46" LASTMODDATE="2008-11-21T14:38:46"
  <METS:dmdSec ID="DMD-1" GROUPID="" ADMID="AMD-1" CREATED="2008-11-21T14:14:16" STATUS="A
    <METS:mdWrap MIMETYPE="text/xml" MDTYPE="OTHER" LABEL="MODS Metadata">
      <METS:xmlData>
        <mods:mods>
          <mods:typeOfResource>MovingImage</mods:typeOfResource>
          <mods:titleInfo ID="T-1" type="">
            <mods:title>NYU Class template</mods:title>
          </mods:titleInfo>
          <mods:identifier type="micUCRecordID">1234</mods:identifier>
          <mods:language>
            <mods:languageTerm authority="local"></mods:languageTerm>
          </mods:language>
          <mods:genre authority="MIGFG-form">Animation</mods:genre>
          <mods:subject ID="SBJ-1" authority="aat"></mods:subject>
          <mods:targetAudience authority="GEM">Higher education</mods:targetAudience>
        </mods:mods>
      </METS:xmlData>
    </METS:mdWrap>
  </METS:dmdSec>
</METS:mets>
```

Figure 42: View a user level template in METS

### Metadata Entries

**Descriptive:**

**Type Of Resource:** MovingImage

**Title Info:**  
**Main Title:** NYU Class template

**Identifier:**  
**Type:** micUCRecordID  
**Identifier:** 1234

**Language:**  
**Term Authority:** local

**Genre:**  
**Genre Authority:** MIGFG-form  
**Genre:** Animation

**Target Audience:**  
**Audience Authority:** GEM  
**Target Audience:** Higher education

---

[Close](#)

Figure 43: View a user level template in TEXT

## 2.3 Upload Digital Files (Figures 44 to 60)

This module needs to be configured before proceeding. See the Installation and Configuration Manual for details. The options available to upload digital files are dependent on the file policies. The OpenWMS supports preserving the original master files (high resolution files such as TIFF file) and presentation files (web presentation files such as JPEG file) for user access. The OpenWMS administrator may configure the file policies based on the organization's needs.

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection** from the collection list.
- iii. If you are uploading digital file(s) to a new record, select **Create New Record**.
  - Select **a content model** from the list.
  - Enter **Type of Item**.
  - Enter **Title**.
  - Click **Digital Files**.
  - Go to step (v).
- iv. If you are uploading digital file(s) to an existing metadata record, select the record and click **Upload Digital Files**.

- v. Select Instructions for file processing from the Digital File Handler screen: ***individual files or a directory (or tar/zip file) containing mixed file types.***
- vi. Select ***Archival File Type***. **Note: The file upload options available depend on the file policies for each digital object content type. See the configuration manual for more details.**
- vii. Select ***File Obtaining Method***. The OpenWMS is capable of generating generic presentation formats such as JPEG. **Note: The options available depend on the file policies.**
- viii. Enter ***custom label*** for each datastream ,if you don't want to display the default datastream labels such as DJVU-1, PDF-1.
- ix. Select ***location of files to be uploaded.***
- x. If you have selected ***Local***, follow the steps below:
  - If you are uploading more than one file, click ***Add more upload fields;***
  - Browse and select the file(s).
  - Click ***Submit.***
  - On the ***File Processing Status*** pop-up window, check file upload status, then click ***closing this window.***
  - Some uploads may take longer. Click ***Refresh*** from the Digital File Handler screen to check the log of file upload.
  - Click on the radio button next to the file to remove the file from the object.
  - Click ***Clear Log*** to clear the log.
  - Click ***Back to Metadata*** to return to the metadata form.
  - Click ***Save*** to save the object.
- xi. If you have selected ***Server***, follow the steps below:
  - Select ***How to specify the files to be uploaded*** and click ***Continue.***
  - If you have selected ***Manually select individual file names:***
    - If you are uploading more than one file, click ***Add more upload fields.***
    - Browse the file system and click on the file to upload
    - Click ***Submit.***
  - If you have selected ***Provide a list of file names,***
    - Browse the file system and highlight the files to upload
    - Click ***Submit.***

- If you have selected ***Specify a range by providing the first and last file name,***
  - Click ***Browse.***
  - Browse the files and select the first page of the digital object.
  - Click ***Set First File Name.***
  - Browse the files and select the last page of the digital object.
  - Click ***Set Last File Name.***
  - Click ***Close*** to return to the previous menu.
  - Click ***Submit*** to start uploading files.

***Note: This option works well for a book object or any multi page object but the file names must be in sequential order (IMG0001.tiff, IMG0002.tiff).***


- On the ***File Processing Status*** popup window, check file upload status, then click ***closing this window.***
- Click ***Refresh*** to check the log of file upload.
- Click on the radio button next to the file to remove the file from the object or click on ***Delete All Files*** to delete all the files.
- Click ***Clear Log*** to clear the log.
- Click ***Back to Metadata*** to return to the metadata form or click ***Exit to Record List*** to return to the Existing Records screen.
- Click ***Save*** to save and exit the object.

xi. Click ***Back to Metadata*** to return to the metadata form or click ***Exit to Record List*** to return to the Existing Records screen.

xii. Click ***Continue.***

EXISTING RECORDS

View: **METS** FOXML TEXT Delete Upload Digital File Edit Record Cancel

	System ID	Record Name
	104	First Record of Sample Collection

Search:

Status: **OK** - All required metadata and digital files have been entered/Uploaded.  
**M** - Missing required metadata value(s).  
**F** - Missing required digital file(s).

Close


Select a content model:

- Audio
- Book
- Document
- Manuscript
- Map
- Pamphlet
- Periodical
- Photograph
- Record
- Transcript
- Video

Figure 44: Create new record screen

EXIT STRUCT MAP DIGITAL FILE(S) VIEW ENTRIES CLEAR ALL SAVE

• Collection: OpenWMS Sample Collection  
 • Type of item: [ not selected ]  
 • Template: Not applied

  
No Images

Descriptive MD Source MD Technical MD Rights MD

(\* indicates required element) More required to log Enter descriptive metadata for: Item 1

Type of Item

\* Type of Item:

Title Information

\* Type:

\* Title:

Subtitle:

Part Name:

104-001-001

Figure 45: Create metadata screen

## Digital File Handler

(File Processing Instructions)

[Exit to Record List](#)
[Exit to Metadata](#)
[Show Upload Status](#)

---

Object Title/Name: test

Digital Content Type: Photograph (Stillimage)

Instructions for file processing:

How are the digital files organized?

☒ Individual files.
   
☐ A directory (or tar/zip file) containing **mixed** file types.

Archival File Type	File Obtaining Method <small>(Files with no method selected will not be precessed)</small>	Label
<b>Master (original)</b> - dng	<input type="radio"/> Upload	<input type="text" value="Use default"/>
- pdf	<input type="radio"/> Upload	<input type="text" value="Use default"/>
- tiff	<input type="radio"/> Upload	<input type="text" value="Use default"/>
<b>Master (derived)</b> - tiff	<input type="radio"/> Upload	<input type="text" value="Use default"/>
<b>Presentation</b> - djvu	<input type="radio"/> Upload <input type="radio"/> System generate	<input type="text" value="Use default"/>

**Figure 46: Upload file selection screen**

	- wmv	<input type="radio"/> Upload	<input type="text" value="Use default"/>
Presentation	- flv	<input type="radio"/> Upload	<input type="text" value="Use default"/>
	- mov	<input type="radio"/> Upload	<input type="text" value="Use default"/>
	- pdfa	<input type="radio"/> Upload	<input type="text" value="Use default"/>
Searchxml	- xml	<input type="radio"/> Upload <input type="radio"/> System generate	<input type="text" value="Use default"/>
	Thumbnail - jpeg	<input type="radio"/> Upload <input type="radio"/> System generate	<input type="text" value="Use default"/>

**Location of files to be uploaded:**

☐ Local (desktop workstation)
 ☒ Server

**How to specify the files to be uploaded:**

☒ Manually select individual file names  
☐ Provide a list of file names  
☐ Specify a range by providing the first and last file names  
(Choose this option only if the file names follow a specific pattern which ends with sequential number before file extension, e.g., IMG0001.tiff, IMG0002.tiff, ...)

**Figure 47: Digital file location selection screen**

### Digital File Handler

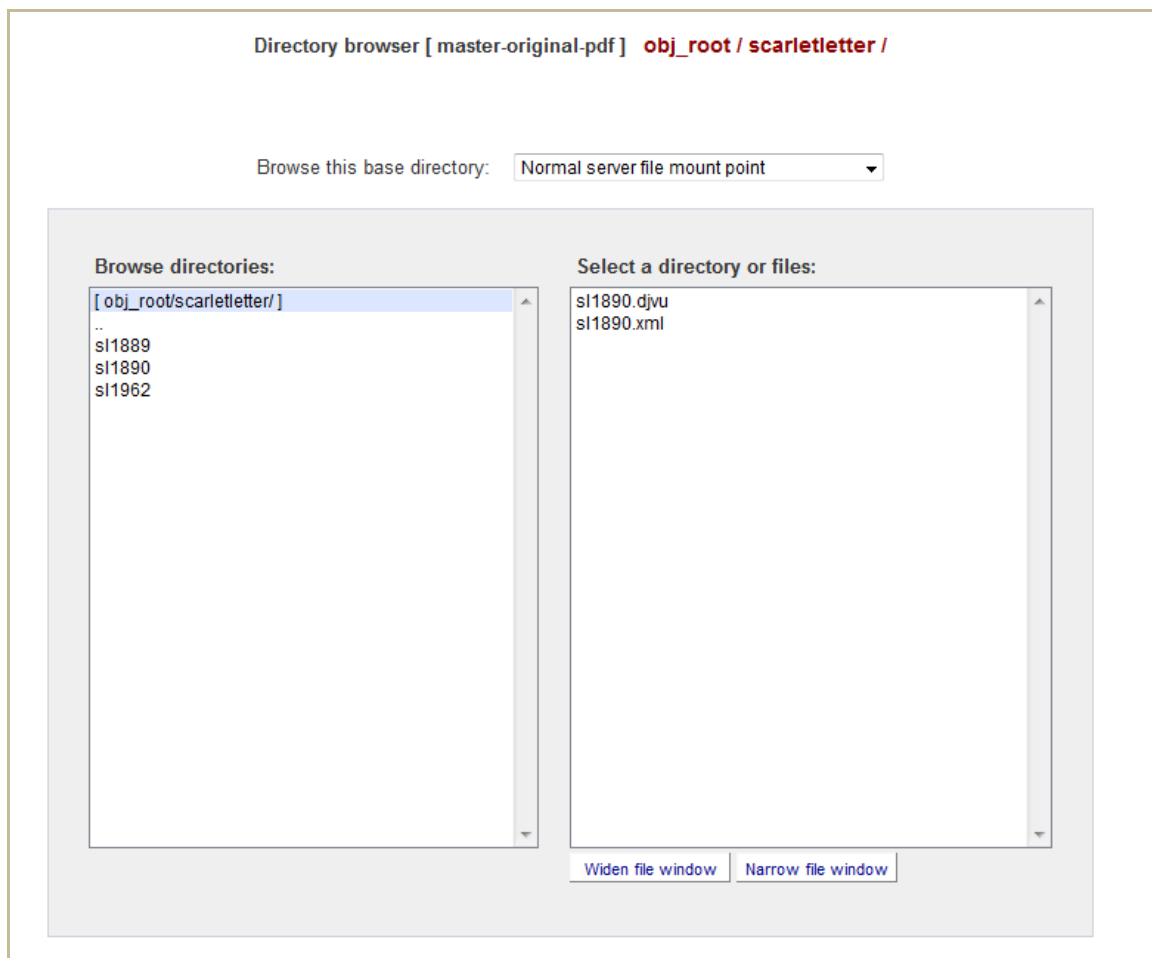
(Upload file(s) from server)

---

Use Browse button to select a file for each file type. Repeat the step for each group of file types that belong to the same order of the item (e.g., for a book, page 1, page 2, ...). Make sure the order for each group of file types is entered.

File Type	File Name	Order
[Master] original-m4v	<input style="width: 90%;" type="text"/> <input type="button" value="Browse ..."/>	1

**Figure 48: Upload digital file from local PC/server screen**



**Figure 49: Digital File upload from server file selection screen**

- gif	<input type="radio"/> Upload <input type="radio"/> System generate	Use default
- jpeg	<input type="radio"/> Upload <input type="radio"/> System generate	Use default
- pdf	<input type="radio"/> Upload <input type="radio"/> System generate <input type="radio"/> Copy from existing archive	Use default
Searchxml - xml	<input type="radio"/> Upload <input type="radio"/> System generate	Use default
Thumbnail - jpeg	<input type="radio"/> Upload <input type="radio"/> System generate	Use default

**Location of files to be uploaded:**

☐ Local (desktop workstation)
 ☒ Server

**How to specify the files to be uploaded:**

☐ Manually select individual file names  
☒ Provide a list of file names  
☐ Specify a range by providing the first and last file names  
(Choose this option only if the file names follow a specific pattern which ends with sequential number before file extension, e.g., IMG0001.tiff, IMG0002.tiff, ...)

[Continue](#)

**Figure 50: Provide a list of files names selection screen**

### Digital File Handler

(Upload file(s) from server)

[Exit to Record List](#)
[Exit to Metadata](#)
[Revise Instructions](#)

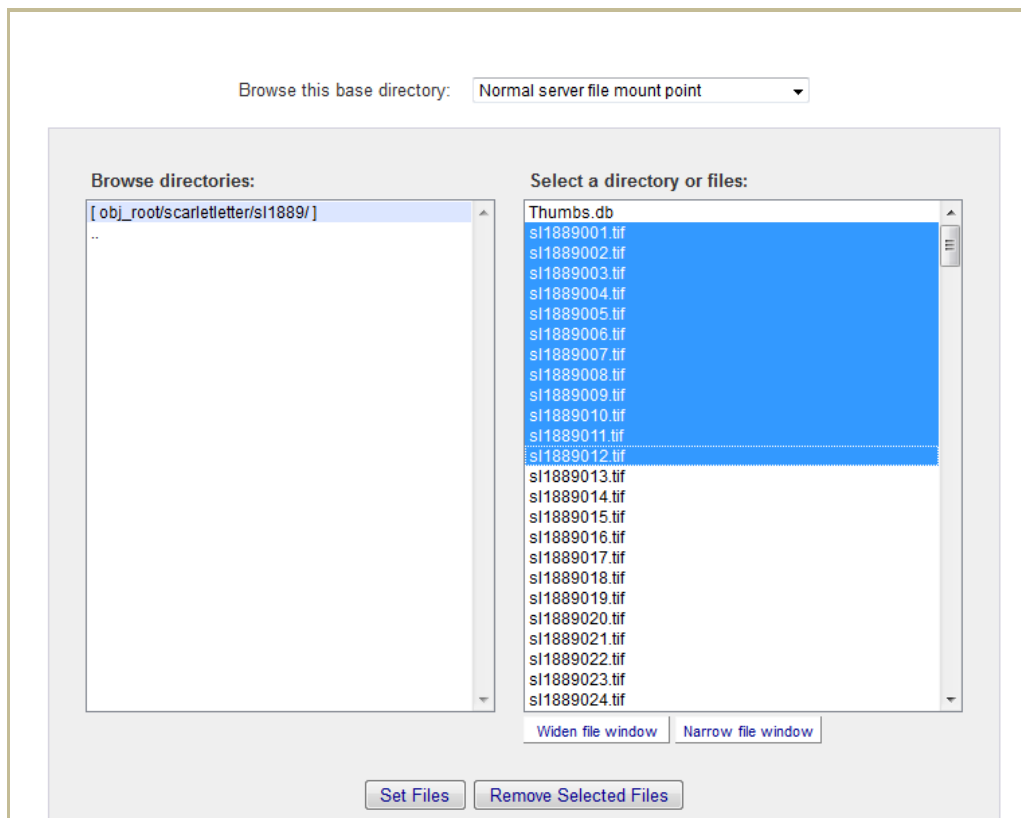
---

if the files to be uploaded was not defined as "aggregate" type (e.g., pdf), enter a list of file names (click Browse button to select files) for each file type. Note that sequence matters - the order of items (e.g., for a book, page 1, page 2, ...) is decided by the sequence of the file list. If uploading more than one file types, the sequence for different file types should remain the same.

File Type	File Name(s)
[Master] derived-tiff	<div style="border: 1px solid gray; height: 40px; width: 100%;"></div> <div style="text-align: right; margin-top: 5px;"><a href="#">Browse...</a></div>

[Submit](#)

**Figure 51: Select digital files – provide a list of files -- screen**



**Figure 52: Select digital files – provide a list of files – screen 2**

**Method to specify file name(s):**

☐ Select and enter file name for each individual object  
☐ Provide a list of file names  
☒ Specify a range by providing the first and last file names  
 (Choose this option only if the file names follow a specific pattern which ends with sequential number before file extension, e.g., IMG0001.tiff, IMG0002.tiff, ...)

**Figure 53: Upload digital file from server—specify a range of files screen**

## Digital File Handler

(Upload file(s) from server)

Exit to Record List
Exit to Metadata
Revise Instructions

---

if the files to be uploaded was not defined as "aggregate" type (e.g., pdf), and if the file names follow a specific pattern which ends with sequential and consecutive number before file extension (e.g., IMG0001.tiff, IMG0002.tiff, ...), enter the first file name ending with lowest number, then enter the last file name with the highest number. Do the same thing for each file type. Use Browse button to select files.

Note: If the file names do not follow this pattern, click Back button and select a different method for entering file names.

File Type	File Name(s)
[Master] derived-tiff	<div>First: <input style="width: 90%;" type="text"/></div> <div>Last: <input style="width: 90%;" type="text"/></div> <div style="text-align: right;"><a href="#">Browse ...</a></div>

Submit

**Figure 54: Set first file and last file name screen**

Directory browser [ master-derived-tiff ] **obj\_root /**

Browse this base directory: Normal server file mount point ▼

**Browse directories:**

[ obj\_root/ ]

ClarenceDillonLibrary-Boylan

ESC2012-1

NB\_STUDY\_GROUP

NewarkPL

Tombstones

bayonne

bethmardutho

boylan-converted

dave

njdj

njedl

njedl-batch

railroads

romancoins

scarletletter

testfiles

voorhees\_clippings

war\_production\_board

**Select a directory or files:**

eBethArke\_Audio\_00001\_MacarrratSyadnaya\_Shximo\_0

Widen file window
Narrow file window

Set as first file name
Set as last file name

First File Name:

Last File Name:

Clear

Clear

**Figure 55: Set first file and last file name screen 2**

Browse this base directory:

Browse directories:

[ obj\_root/voorhees\_clippings/ ]

..

Select a directory or files:

19561128\_01.tif  
19561129\_01.tif  
19561129\_02.tif  
19561129\_03.tif  
19561129\_04.tif  
19561129\_05.tif  
19561129\_06.tif  
19561130\_01.tif  
19561130\_02.tif  
19561130\_03.tif  
19561130\_04.tif  
19561130\_05.tif  
19561130\_06.tif  
19561130\_07.tif  
19561130\_08.tif  
19561130\_09.tif  
19561130\_10.tif  
19570102\_001.tif  
19570102\_002.tif  
19570102\_003.tif  
19570102\_004.tif  
19570102\_005.tif  
19570102\_006.tif  
19570102\_007.tif  
19570102\_008.tif

Widen file window

Narrow file window

Set as first file name

Set as last file name

First File Name:

Last File Name:

Figure 56: Set first file and last file name screen 3

# Digital File Handler

(Status)

Exit to Record List
Back to Metadata
Upload More Files

---

Refresh
Clear Log

File Status:	All master files are uploaded and/or created.				
Existing Files:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30px; text-align: center;"><input type="radio"/></td> <td>factsFancies.pdf (master)</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/></td> <td>factsFancies.pdf (presentation)</td> </tr> </table> <p style="font-size: small;">(Note: clicking the radio button will remove the file from system.)</p> <span>Delete All Files</span>	<input type="radio"/>	factsFancies.pdf (master)	<input type="radio"/>	factsFancies.pdf (presentation)
<input type="radio"/>	factsFancies.pdf (master)				
<input type="radio"/>	factsFancies.pdf (presentation)				
Log:	<div style="text-align: right;">2012-03-14 16:34:49</div> <div> PDF:  Uploaded: factsFancies.pdf  Checksum = cb0c4d0f7d3dfe20976d45d5da8b1699498264e92  Done!  PDF: </div>				

**Figure 57: Digital file handler status screen**

## 2.4 Batch load existing metadata and digital files (Figures 58 to 64)

The OpenWMS provides batch loading capabilities to import metadata records from existing database(s). It has built-in MARCXML and MODS XML mapping tools, developed by Library of Congress, which automatically map metadata into the OpenWMS database. If metadata is in any other format, you need to map your data elements to OpenWMS database using the Mapping Utility using the “in-house” option. Follow the instructions below to batch load metadata from existing database(s).

### A: Map metadata elements

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management System main screen.
- ii. Select **Batch Import**.
- iii. Select **Mapping**.
- iv. Select **WMS internal schema** to map your metadata elements.
- v. Select **Create or Revise Mapping**.
- vi. You may either create a new mapping *or* edit an existing mapping.
- vii. To create a new mapping:

- Enter a map name.
- Select a schema of your records.
- If you have selected *MARC (xml) or MODS (xml)*, mapping is automatically provided by OpenWMS.
- If you have selected “in-house (text)”, you must map metadata elements from the in-house database to OpenWMS database. You also need to export the metadata in .txt format from the native database.

a) Provide field list.

- Enter the name of the elements in the same order as it appears in the in-house database.
- If there are more than 10 elements in the database, click **More fields**.
- Use edit tools “<<” and “x” to insert or remove data elements from the field list.
- Enter the field delimiter used in metadata text file.
- Click **Update Fields**.

b) Map metadata fields.

- Select the element on the left side of the window from the in-house database and select the appropriate OpenWMS database element. This will automatically map these two elements and these elements will appear in the mapping list. To delete mapping of an element, click on the radio button.
- If the data elements have multiple values, enter the value separator in the “**Multi-value Separator**” box in the mapping results window.

- When you are done with mapping, click **Save**.

- viii. Click **Upload sample records**. Before starting the batch import, it is recommended to view mapping of sample records.
- ix. Select the mapping from the pull down list.
- x. Browse and Upload the sample text file. It is recommended to prepare a sample file with a few records to test mapping.
- xi. Click **Submit**.
- xii. Select **Check Map** from the Mapping Screen.

- **Select a Mapping for review.**
- Sample records will be displayed on the screen.
- Select a record and click on **TEXT or XML (METS)**.

- Review uploaded records. If you are satisfied with the mapping results, proceed to batch import.

xiii. Click **Exit** to return to the Metadata and Digital Object Main screen.

The screenshot shows the 'Batch Import' mapping screen in the Digital Object Workflow Management System. The page has a dark blue header with the system name and a navigation bar with links like 'Contact Us', 'Report Error', 'Help', 'Version', and user information '[ ananthan kalaivani ] Log out'. Below the navigation bar, there are tabs for 'Metadata and Digital Object', 'Administration', 'Configuration', and 'User Account'. The main content area has a sub-header 'TEST COLLECTION 1' with a 'Change Collection' link. A horizontal menu contains 'Metadata / Digital Object', 'Batch Import', 'Export', and 'Fedora IO'. Below this, a breadcrumb trail shows 'Mapping' and 'Batch Import'. The main heading is 'MAP METADATA TO WMS FORMAT'. On the left, a box titled 'General Procedure for Mapping:' contains a three-step list: 1. Create a mapping by indicating how the fields in your metadata records translate (map) to WMS data fields. 2. Upload up to 25 sample records. 3. Check the map. Review how your sample records display in WMS according to the template. Below the list, it says 'You can revise the mapping as many times as needed until the sample records display to your satisfaction.' On the right, under 'Map to:', there is a radio button selected for 'WMS internal schema'. Below this are three buttons: 'Create or Revise Mapping', 'Upload Sample Records', and 'Check Map'.

Figure 58: Batch import mapping screen

[Contact Us](#)
[Report Error](#)
[Help](#)
[Version](#)

[\[ ananthan kalaivani \]](#)
[Log out](#)

[Metadata and Digital Object](#)
[Administration](#)
[Configuration](#)
[User Account](#)

TEST COLLECTION 1

Change Collection

Metadata / Digital Object

Batch Import

Export

Fedora IO

Mapping

Batch Import

### MAP METADATA TO WMS FORMAT

Please follow steps below to map your records to WMS:

Select an existing mapping to edit:

OR

If creating a new mapping, enter a mapping name (will be used as ID):

Schema of your records:

Cancel

Save

Please follow steps below to map your records to MIC Union Catalog.

Enter a name (ID) for the mapping:

**OR**

Select an existing mapping to edit: ----- Select a mapping ----- ▼

Schema of your records: In-house (text) ▼

**Step 1. Provide field list**

Please enter the field names in exact order of the fields in your metadata **txt** file (even if the field has no values):

Order	Field Name	Edit Tool
1	<input style="width: 90%;" type="text"/>	<<   X
2	<input style="width: 90%;" type="text"/>	<<   X
3	<input style="width: 90%;" type="text"/>	<<   X
4	<input style="width: 90%;" type="text"/>	<<   X
5	<input style="width: 90%;" type="text"/>	<<   X
6	<input style="width: 90%;" type="text"/>	<<   X
7	<input style="width: 90%;" type="text"/>	<<   X
8	<input style="width: 90%;" type="text"/>	<<   X
9	<input style="width: 90%;" type="text"/>	<<   X
10	<input style="width: 90%;" type="text"/>	<<   X

Edit Tool: << Insert before this field. X Remove this field. [more fields](#)

**Step 2. Map Metadata Fields**

To do the mapping, select an In-house DB element (left), then a matching element in our system (right). Repeat the step until done:

In-house DB Element	Target Element
genre	Descriptive metadata
	Table of Contents
	Type of Resource
	Element
	MIC Portal ID
	Main Title
	SubTitle
	Main Title - Type
	Main Title - Part Name
	Main Title - Part Number
	Main Title - Nonsort
	Identifier - Type
	Identifier
	Identifier - Display Label
	Identifier - Invalid
	Language - Term source
	Language
	Language - Term Type
	Language - Object Part
	Genre Source
	Genre

**MAPPING RESULT**

(Click radio button to remove from the list)

	In-house DB Element	Multi-value Separator	Target Element
<input type="radio"/>	title		Main Title
<input type="radio"/>	genre source		Genre Source

Figure 61: Map metadata to WMS format step 2 screen, “in-house (text)” schema

**Digital Object Workflow Management System**

Contact Us | Report Error | Help | Version | [ ananthan kalaivani ] Log out

**Metadata and Digital Object** | Administration | Configuration | User Account

OPENWMS SAMPLE COLLECTION | Change Collection

Metadata / Digital Object | **Batch Import** | Export | Fedora IO

Mapping | Batch Import

**REVIEW MAPPING WITH UPLOADED SAMPLES**

Select a mapping for review: aTest

sample 1

Back to Mapping Main

Figure 62: Review mapping with uploaded samples

## **B: Batch Import**

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection** from the collection list.
- iii. Select **Batch Import** from the Metadata and Digital Object Main Screen.
- iv. Select **Batch Import tab**.
- v. Select **Metadata Schema**.
- vi. Select **Record Format** (XML for MARC and MODS; TXT (tab-delimited) for in-house (text)).
- vii. Select **Mapping Name**.
- viii. Select **"Yes"** if the text file has already been uploaded, otherwise, select **"No"**.
- ix. If you have selected **"Yes"**, select **an uploaded file to import**.
- x. Click **Import**.
- xi. If you have selected **"No"**, you will be prompted to select the location of the file.
- xii. Select **"Local Computer"** if the file is on the PC; otherwise, select **"Server"**.
- xiii. If you have selected **"Local Computer"**, browse and select the file.
- xiv. Click **Upload**.
- xv. If you have selected **"Server"**, enter the absolute path of the file.
- xvi. Click **Upload**.
- xvii. If you are importing digital files: select **"Yes"**, otherwise select **"No."**
- xviii. If you have selected **"Yes"**, **specify digital file processing details**.
- xix. If some of the metadata values are imported from a template, select **"Yes"**; select **a template**.
- xx. Click **Import**.
- xxi. Click **Refresh** check the status of the import.
- xxii. Once the import is completed, you will be able to review the records in the metadata record list. Exit from the import screen and select **Create/Edit Digital Object**. If there are any errors, review the records failed, and reload them.

### Figure 63: Batch import screen

Mapping Batch Import

### BATCH IMPORT METADATA/DIGITAL OBJECTS INTO WMS

**Step 1. Mapping information**

Metadata Schema: In-house (text) ▼  
 Record Format: TXT (tab-delimited) ▼  
 Select a mapping: KA test ▼

**Step 2. Upload metadata file(s)**

Metadata file(s) already uploaded? ☐ Yes ☐ No  
 Select an uploaded file to import: ▼ Delete

**Step 3. Are you importing digital object file(s), too?**

☐ Yes (mapping for digital files must exist) ☒ No

**Step 4. Use template to add extra fields/values (fields that may not exist in the mapping)?**

☐ Yes.  
☒ No, do not apply template.

Import

Import Status		
Total Record	Finished	Error
0	0	

Clear Refresh

**Figure 64: Batch import 3 steps screen**

## 3. Export or Interact with Fedora (Figures 65 to 77)

### 3.1 Fedora Users

The OpenWMS interacts with the Fedora repository using the Fedora I/O module. Metadata creators can ingest objects into Fedora individually or in batch mode; Metadata creators can also bring objects from the Fedora repository into WMS forms to perform metadata edits. Please note that the OpenWMS does not allow users to replace digital files once an object is ingested into the Fedora repository.

### Ingesting objects into the Fedora repository

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection** from the collection list.
- iii. Select **Fedora IO**.
- iv. Select **Ingest to Fedora**.
- v. Select **resource(s)**.
- vi. Click **Ingest**.
- vii. The status of the ingest process is displayed under **"Status."** There are three statuses: **OK** (Object is ready for ingest), **In progress** (Object is being ingested), **Done** (Object is ingested), and **Failed** (Problem with the ingest process)

### Editing objects ingested into the Fedora Repository

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection** from the collection list.
- iii. Select **Fedora IO**.
- iv. Select **Edit Fedora Objects**.
- v. Search for object by Title or Fedora ID. Enter **'\*'** to search everything in the selected collection.
- vi. Select the resource to edit.
- vii. Click **Edit**.
- viii. Make changes to metadata.
- ix. Click **Save**.
- x. Select the metadata type you have edited. If you have edited in all metadata types, select all of them and add a comment.
- xi. Click **Submit**.

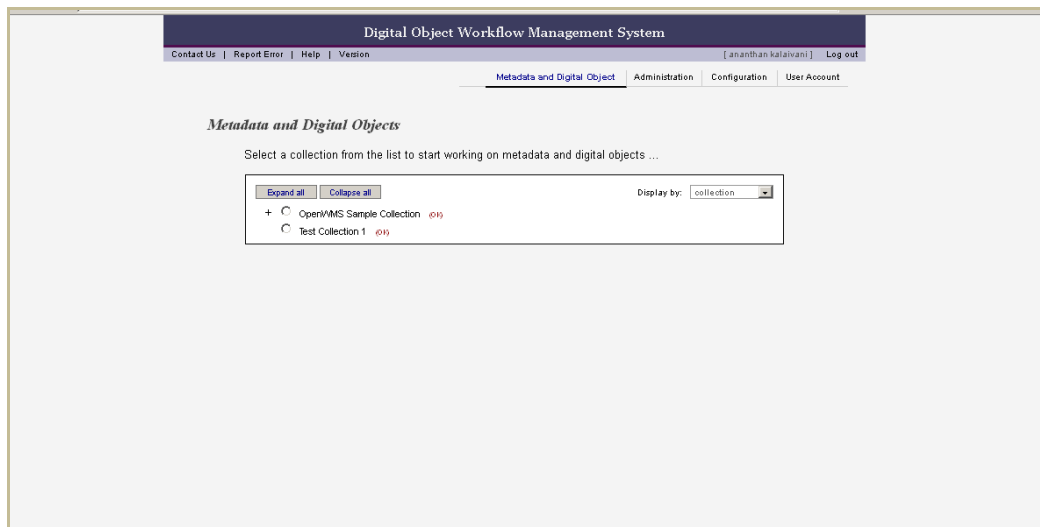
### Viewing objects that are ingested into the Fedora Repository

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management System main screen.
- ii. Select **Collection** from the collection list.
- iii. Select **Fedora IO**.
- iv. Select **Edit Fedora Objects**.
- v. Search for object by Title or Fedora ID. Enter **'\*'** to search everything in the selected collection.
- vi. Select the resource to view.
- vii. Click **View**.

## **Purge/Reingest**

If the ingested object is still in the WMS, select the object and click on ***“Purge/Reingest”***. This action will purge the object in Fedora and re-open the record in WMS. Once the object is re-opened, it will be displayed in the Record List in Metadata/Digital Object section.

You can add more metadata or correct metadata and ingest the object.



**Figure 65: Digital Object Workflow Management System main screen**

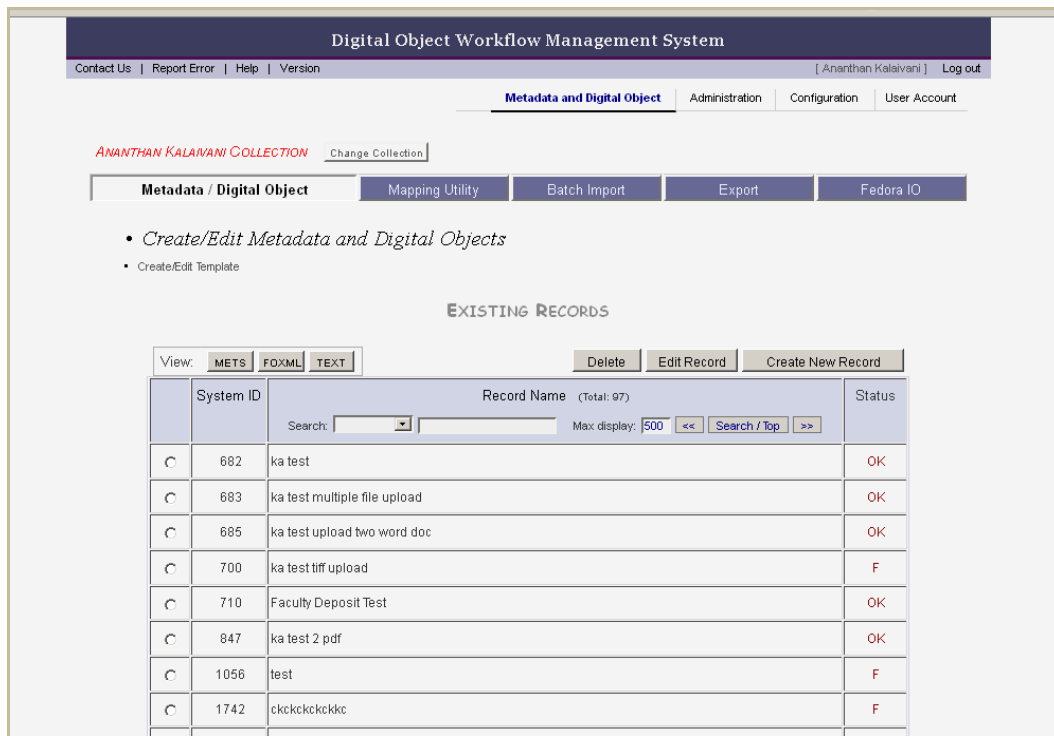


Figure 66: Metadata and Digital Object main screen

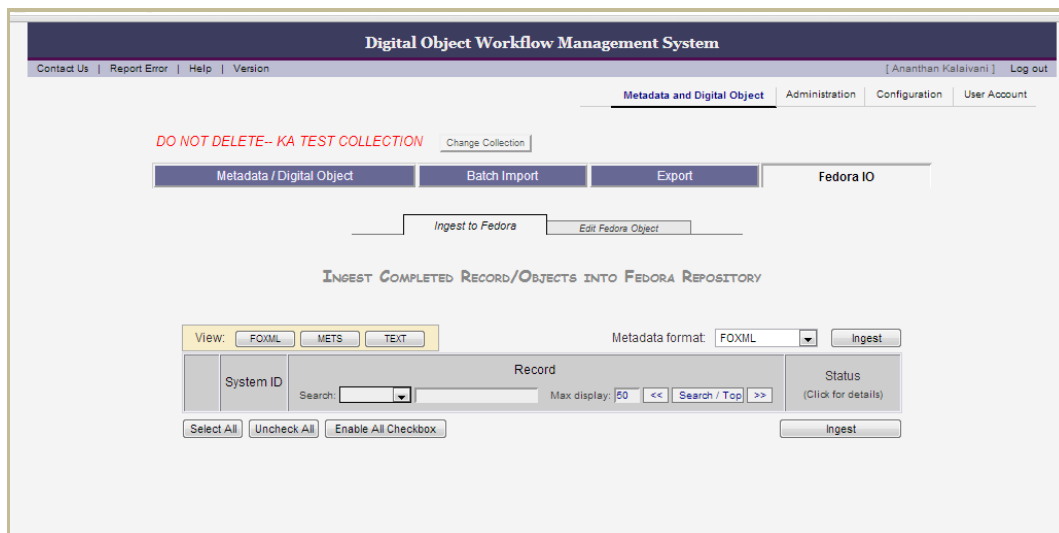


Figure 67: Fedora IO screen

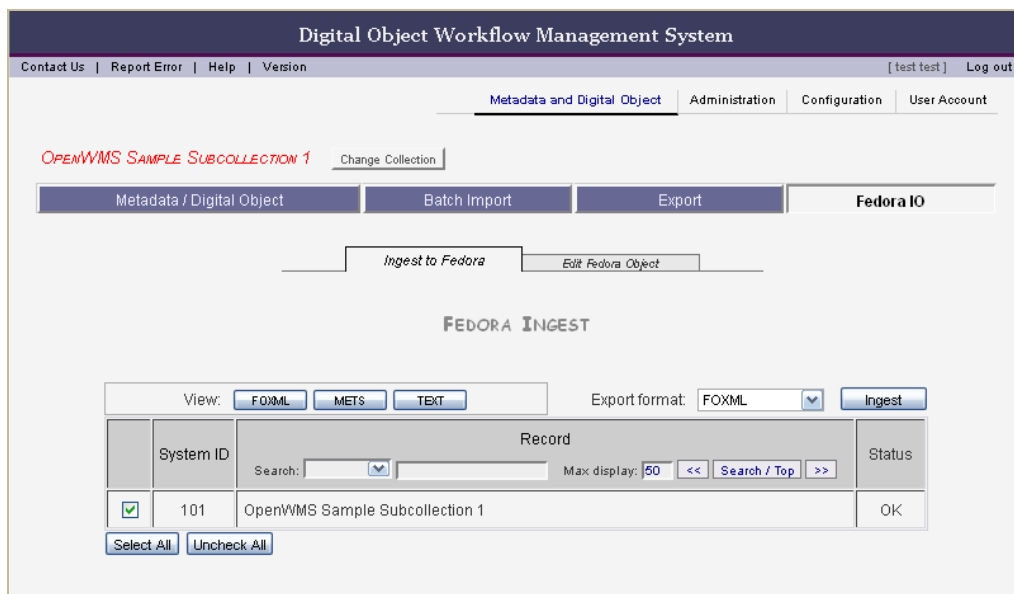


Figure 68: Fedora IO ingest screen

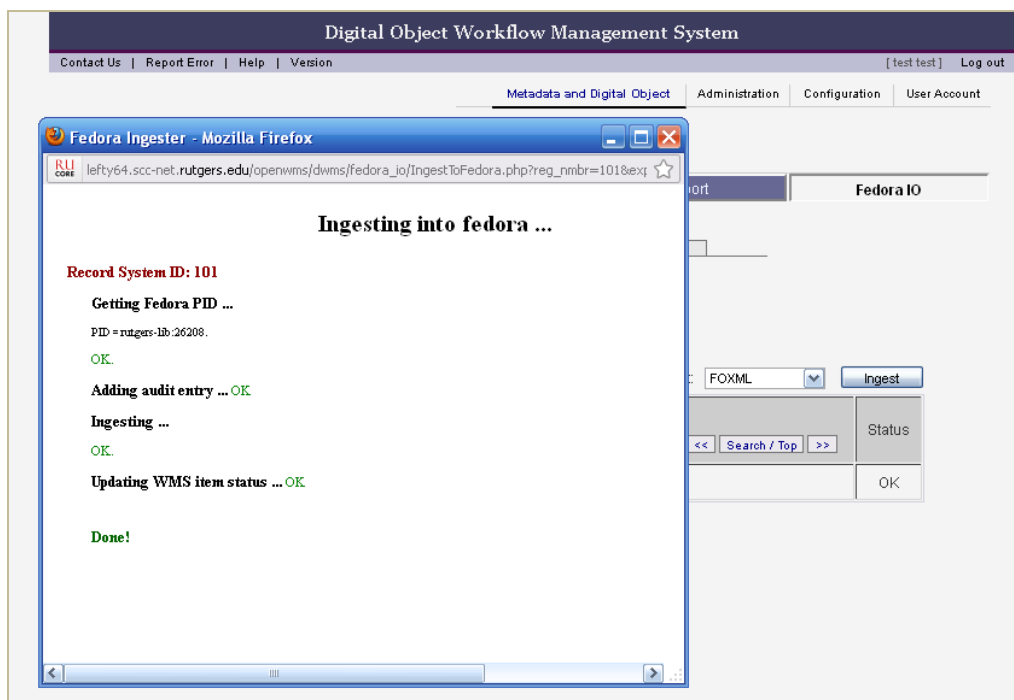


Figure 69: Ingest status window

act Us | Report Error | Help | Version [Ananthan Kalaivani] Log out

Metadata and Digital Object Administration Configuration User Account

**DO NOT DELETE-- KA TEST COLLECTION** [Change Collection](#)

Metadata / Digital Object Batch Import Export Fedora IO

[Ingest to Fedora](#) [Edit Fedora Object](#)

EXISTING OBJECTS IN FEDORA REPOSITORY

[Purge / Reingest](#) [View XML](#) [Edit](#)

Search: ☒ Resource ☐ Collection  
 for: Title  \*  
 Display: 50 [Search](#)

	Fedora PID	Title	Created Date
<input type="radio"/>	rutgers-lib:34027	test photograph	
<input type="radio"/>	rutgers-lib:35422	test - test edit under 7.0	
<input type="radio"/>	rutgers-lib:35423	test R5.2.1 ingest	
<input type="radio"/>	rutgers-lib:36474	Test R6.0 collection	
<input type="radio"/>	rutgers-lib:36994	Test two for release six point one	
<input type="radio"/>	rutgers-lib:39388	Ron's article: test for search XML test 3	
<input type="radio"/>	rutgers-lib:39698	YY test for label (7.0.1)	

[Purge / Reingest](#) [View XML](#) [Edit](#)

Figure 70: Editing objects in Fedora repository main screen

EXIT DIGITAL FILE(S) VIEW ENTRIES CLEAR ALL SAVE

- Collection: DO NOT DELETE-- KA TEST COLLECTION
- Type of item: Stillimage
- Template: Not applied [Apply Template](#)

[No Images](#)

Descriptive MD Source MD Technical MD Rights MD

Enter descriptive metadata for: Item 1

\* indicates required element (click [here](#) to move all required to top)

Type of item  
 Type of item: Stillimage

Title Information

Type:   
 Title:   
 Subtitle:   
 Part Name:   
 Part Number:   
 Non-sort:

Entries for [ title information ]:  
 1. test photograph; main [Add more title information](#)

Identifier

\* Type:   
 \* Value:   
 \* Display Label:   
 \* Invalid:

NAVIGATOR

Figure 71: Editing object in Fedora repository – metadata screen

This XML file does not appear to have any style information associated with it. The document tree is shown below

```
- <foxml: digitalObject VERSION="1.1" PID="rutgers-lib:25471" xsi:schemaLocation="info:fedora/fedora-system: def
/foxml# http://www.fedora.info/definitions/1/0/foxml1-1.xsd">
- <foxml: objectProperties>
  <foxml: property NAME="info:fedora/fedora-system: def/model#state" VALUE="Active"/>
  <foxml: property NAME="info:fedora/fedora-system: def/model#label" VALUE="rucore30000100001"/>
  <foxml: property NAME="info:fedora/fedora-system: def/model#createdDate" VALUE="2010-08-05T18:58:15.310Z"/>
  <foxml: property NAME="info:fedora/fedora-system: def/view#lastModifiedDate"
VALUE="2012-03-19T14:31:39.237Z"/>
</foxml: objectProperties>
- <foxml: datastream ID="AUDIT0" STATE="A" CONTROL_GROUP="X" VERSIONABLE="false">
- <foxml: datastreamVersion ID="AUDIT0" LABEL="Audit Trail for this object"
CREATED="2010-08-05T18:58:15.310Z" MIMETYPE="text/xml" FORMAT_URI="info:fedora/fedora-system: format
/xml.fedora.audit">
- <foxml: xmlContent>
- <audit: auditTrail>
  - <audit: record ID="AUDREC1">
    <audit: process type="Fedora API-M"/>
    <audit: action>modifyDatastreamByValue</audit: action>
    <audit: componentID>MODS</audit: componentID>
    <audit: responsibility>fedoraAdmin</audit: responsibility>
    <audit: date>2010-10-07T19:02:34.305Z</audit: date>
    <audit: justification/>
  </audit: record>
  - <audit: record ID="AUDREC2">
    <audit: process type="Fedora API-M"/>
    <audit: action>modifyDatastreamByValue</audit: action>
    <audit: componentID>DC</audit: componentID>
    <audit: responsibility>fedoraAdmin</audit: responsibility>
    <audit: date>2010-10-07T19:02:34.397Z</audit: date>
    <audit: justification/>
  </audit: record>
  - <audit: record ID="AUDREC3">
    <audit: process type="Fedora API-M"/>
```

Figure 72: Record viewed in XML screen

## 3.2 Non-Fedora Users

There are two possible scenarios in which you may export records:

- 1) Organizations using a repository may export the bibliographic records in the OpenWMS database as METS and convert to your repositories native schema using third-party tools or XSLT transformations provided by you.
- 2) Organizations with no repository may export a copy of the bibliographic records in the OpenWMS database as METS and made available to an XML search and retrieval facility, such as Lucene or Zebra.

Follow the instructions below to export records:

- i. Select **Metadata and digital objects** from the Digital Object Workflow Management System main screen.

- ii. Select **Collection** from the collection list.
- iii. Select **Export** from the Main Cataloging Screen.
- iv. Select **Export Format** (METS).
- v. Select **Export Destination** (File).
- vi. Click **one record per file** for file option.
- vii. Select **File Name Prefix**.
- viii. **Specify record(s) to export**. There are three options available.
  - “All records of this collection” will export every record in the collection in a separate file under the export directory configured by the system administrator.
  - If “A subset of this collection “is selected, a pop-up box will be prompted to select a range to export.
  - If “Single record” is selected, a pop-up box will be prompted to select a record to export.
- ix. Click **Export**.
- x. Click **Refresh** to monitor the progress of export.

**Digital Object Workflow Management System**

act Us | Report Error | Help | Version [ Ananthan Kal]

Metadata and Digital Object Administration Configuration

**DO NOT DELETE-- KA TEST COLLECTION** Change Collection

Metadata / Digital Object Batch Import Export Fedora IO

Map to export format Export to file

**EXPORT METADATA FROM WMS**

Export format:

Export destination:

File export options

[ Metadata record distribution ]

☒ One record per file

☐ All records in one file

[ File name prefix ]

☐ Provided by system

☒ Provided by user

(System ID for each record will be appended to the end of each single record file name no matter which file name prefix option you select)

Specify record(s) to export:

Export Status

Destination Path	Total	Finished	Error

Delete Refresh

Export

Figure 73: Export screen

## Section F: Other Administrative Functions

A few administrative functionalities in the OpenWMS are available to users with “superuser” privilege or cataloging utility privilege only. They are:

- 1) Manage controlled vocabularies
- 2) Define collection level required elements
- 3) Managresources

### 1. Manage controlled vocabularies (Figures 74 to 78)

Controlled vocabulary terms can be added while creating metadata record, creating a metadata template or using the configuration module. Using the Controlled Vocabulary module, you may:

- a) Add a new term source (authority) to an element;
- b) Add terms to a term source (authority);

#### Add Controlled Vocabularies

- i. Click on the green **Navigator** from the metadata entry screen.
  - ii. Select **Edit CV**.
  - iii. Select **Item Type**.
  - iv. Select **Metadata Type**.
  - v. If you are adding terms to source metadata, select **Source type**; if you are entering technical metadata, select **Type of Resource**.
- a) To add a new term source (authority) to an element:
    - Locate the element name.
    - Click on **Term source**.
    - Enter the term source in the white box. If you are entering multiple terms, separate each term with a **semi-colon**.
    - Click **Submit**.
    - **Click OK**.
    - Click **OK** if you are done, otherwise, click **Cancel**.
  - b) To add terms to an authority:
    - Locate the element name.
    - Select the **Term Source**.
    - Enter **terms**. If you are entering multiple terms, separate each term with a **semi-colon**.

- Click **Submit**.
- **Click OK**.
- Click **OK** if you are done, otherwise, click **Cancel**.

## **Edit Controlled Vocabularies**

- i. Click on the green **Navigator** from the metadata entry screen.
- ii. Select **Edit CV**.
- iii. Select **Item Type**.
- iv. Select **Metadata Type**.
- v. If you are editing terms in source metadata, select **Source type**; if you are entering technical metadata, select **Type of Resource**.
  - a) To edit a term source (authority):
    - If the term source (authority) has associated terms, follow instructions to add new term source (authority) and the associated terms.
    - Then delete the terms and the term source (authority).
  - b) To edit terms:
    - Locate the element name.
    - Select the **Term Source**.
    - Edit **terms**. If you are editing multiple terms, separate each term with a **semi-colon**.
    - Click **Submit**.
    - **Click OK**.
    - Click **OK** if you are done, otherwise, click **Cancel**.

## **Delete Controlled Vocabularies**

- i. Click on the green **Navigator** from the metadata entry screen.
- ii. Select **Edit CV**.
- iii. Select **Item Type**.
- iv. Select **Metadata Type**.
- v. If you are deleting terms in source metadata, select **source type**; if you are entering technical metadata, select **Type of Resource**.
  - a) Delete a term source (authority) from an element:
    - If the term source (authority) has associated terms, follow instructions to add new term source (authority) and the associated terms.

- Then delete the terms and the term source (authority).

b) Delete terms from a term source (authority):

- Locate the element name.
- Select the term source (authority).
- Delete terms in the white box.
- Click **Submit**.
- **Click OK.**
- Click **OK** if you are done, otherwise, click **Cancel**.

Title Information

Type:

Title:

Subtitle:

Entries for [ title ]  
1. test; main

Identifier

Language

Object Part:

**Navigating Cataloging Utility** CLOSE

Select an action, jump to a metadata element, or switch to a different metadata category.

EXIT WITHOUT SAVING STRUCT MAP DIGITAL FILE(S) VIEW ENTRIES SAVE

Descriptive MD	Source MD	Technical MD	Rights MD
Abstract or Summary			Top
Classification	Related Item		Bottom
Corporate/Organization Name	Subject (cartographics)		
Descriptive Event	Subject (geographic - hierarchical)		
Element	Subject (geographic)		
Genre	Subject (name)		
Identifier	Subject (temporal - date)		
Language	Subject (temporal - era)		
Location	Subject (topic)		
Note	Table of Contents		
Origin Info	Target Audience		
Part	Title Information		
Personal Name	Type of Item		
Presentation Format			

[ Edit CV ] CLOSE

Figure 74: Navigating Cataloging Utility screen

### Controlled Vocabularies

☒ Add/Edit controlled vocabulary terms

Item Type: 
 Metadata Type:

- Descriptive Metadata
  - [Type of Item](#)
  - Title Information
    - [Type](#)
    - Title
    - Subtitle
    - Part Name
    - Part Number
    - Nonsort
  - Identifier
    - [Type](#)
    - Value
    - Display Label
    - [Invalid](#)
  - Language
    - [Term source](#)
    - [Language Term](#)

Figure 75: Controlled vocabularies screen

### Controlled Terms for [Term source]

Use the box below to add, edit, or delete the terms.

**Note:**

- 1) Separate each term with semicolon ";".
- 2) Order matters - the terms will be displayed on the input form in the same order as you enter them here.
- 3) If term source dropdown list appears, select a term source before entering terms.

ISO 639-3:2007;  
 ISO639-2;

Figure 76: Controlled vocabularies term source selection screen

### Controlled Vocabularies

• Add/Edit controlled vocabulary terms

Item Type:   
 Metadata Type:

- Descriptive Metadata
  - Type of Item
  - Title Information

Controlled Terms for [Language Term]

Use the box below to add, edit, or delete the terms.

**Note:**

- 1) Separate each term with semicolon ';'.
 - 2) Order matters - the terms will be displayed on the input form in the same order as you enter them here.
- 3) If term source dropdown list appears, select a term source before entering terms.

Term source:

chi;  
 eng;  
 fre;  
 ger;  
 gre;  
 ita;

..:

- Subject (topic)

Figure 77: Controlled vocabulary terms screen

- Subject (temporal - era)
  - Term source
  - Date
- Subject (temporal)
  - Start/End
  - Encoding
  - Date
  - Date is
  - Sort by this date
- Subject (geographic)
  - Term source

The page at <http://mss3.libraries.rutgers.edu> says:

CVs have been updated successfully

Figure 78: Controlled vocabularies confirmation screen

## 2. Define Collection Level Required Elements (Figures 79 to 81)

The OpenWMS allows users with super user privilege to define required elements at collection level. The elements that are set as required are validated by OpenWMS, and if any elements are missing values, they are flagged with an “M”.

- i. Select **Configuration** from the Digital Object Workflow Management System main screen.
- ii. Select **Cataloging**.
- iii. Select **Required fields**.
- iv. Select **item type**.
- v. Select **metadata type**.
- vi. Select **Customize collection level required elements**.
- vii. Select or create a *customization: the collection(s)*.
- viii. Select/Change collection.
- ix. Select **collection**.
- x. Click on the element(s).
- xi. Select **Yes** to set the field and all of its subfields as required field.
- xii. Click **Save**.
- xiii. Follow steps i – x to set required elements in other metadata types.

To disable required elements:

- i. Click on the element.
- ii. Select **Yes** to remove the element from required element list.
- iii. Click **Save**.

Cataloging	Digital File	Structure Map	Batch Import	Export	A
------------	--------------	---------------	--------------	--------	---

### Required Elements

**Specify required elements for:**

Item Type:

Metadata Type:

Additional Criterion:

☐ System-wide required elements  
☒ Customize collection level required elements

• Select or create a customization:  [Select existing](#)  
 • Apply to following collection(s): [Select/Change collection](#)

DO NOT DELETE-- KA TEST COLLECTION

[Save](#)

- Descriptive Metadata
  - Type of Item
  - Title Information
    - Type
    - Title

Figure 79: Required elements configuration screen

CV Terms	<h3 style="text-align: center;">Required Elements</h3> <div style="border: 1px solid #ccc; padding: 10px; margin: 10px;"> <p><b>Specify required elements for:</b></p> <p>Item Type: <input type="text" value="Resource"/></p> <p>Metadata Type: <input type="text" value="Descriptive"/></p> <p>Additional Criterion: <input type="text"/></p> <p> <input type="radio"/> System-wide required elements  <input checked="" type="radio"/> Customize collection level required elements           </p> <p>             • Select or create a customization: <input type="text" value="test"/> <a href="#">Select existing</a>              • Apply to following collection(s): <a href="#">Select/Change collection</a> </p> <p style="color: green; text-align: center;">DO NOT DELETE-- KA TEST COLLECTION</p> <p style="text-align: right;"><a href="#">Save</a></p> </div> <div style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <ul style="list-style-type: none"> <li>• Descriptive Metadata               <ul style="list-style-type: none"> <li>• Type of Item</li> <li>• <b>Title Information</b> <ul style="list-style-type: none"> <li>• <b>Type</b></li> <li>• <b>Title</b></li> </ul> </li> </ul> </li> </ul> </div>
<b>Required Field</b>	
TOR/ST Mapping	
Date/Time Format	
System Supplied	
Technical MD	

Set this field and all of its subfields as required?

☒ Yes  
☐ No

- Identifier

Figure 80: Set required elements

Required Elements

Specify required elements for:

Item Type: Resource

Metadata Type: Descriptive

Additional Criterion:

☐ System-wide required elements  
☒ Customize collection level required elements

• Select or create a customization: test [Select existing](#)

• Apply to following collection(s): [Select/Change collection](#)

DO NOT DELETE-- KA TEST COLLECTION

Save

- Descriptive Metadata
  - Type of Item
  - Title Information
    - Type
    - Title
    - Subtitle

Remove this field and all of its subfields from the required field set?

☐ Yes  
☐ No

Figure 81: Remove required elements screen

### 3. Resource Management (Figures 82 to 84)

This module allows users with cataloging utility privilege to:

- 1) Clean up database or reopen resource for editing or re-ingesting
- 2) Change affiliation (change collection/ownership)
- 3) Edit Raw XML
- 4) Manage collection owner

#### 1) Clean up database or reopen resource for editing or re-ingesting

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
  - i. Select **resource**.
  - ii. Select **Collection**.
  - iii. To delete records from the WMS database: Select resource and click **Delete**.
  - iv. To re-open a record to edit or re-ingest: Select the resource and click **Reopen**.
  - v. Click **OK** to confirm.

**RESOURCE MANAGEMENT**

[Clean Up](#)
[Change Affiliation](#)
[Edit Raw Xml](#)

Showing closed resources for this collection: **DO NOT DELETE-- KA TEST COLLECTION.**
[Change Collection](#)
[Show All](#)

View: [METS](#) [TEXT](#)
[Reopen](#)
[Delete](#)

	System ID	Resource Name (Total: 27; Closed: 6)	Status
	Search: <input type="text"/>	Max display: <input type="text" value="50"/> << <a href="#">Search / Top</a> >>	
<input type="checkbox"/>	60960	test	CLOSED
<input type="checkbox"/>	61494	test photograph	CLOSED
<input type="checkbox"/>	62872	test R5.2.1 ingest	CLOSED
<input type="checkbox"/>	63887	Test two for release six point one	CLOSED
<input type="checkbox"/>	64066	Ron's article: test for search XML test 3	CLOSED
<input type="checkbox"/>	67793	YY test for label (7.0.1)	CLOSED

[Select All](#)
[Uncheck All](#)

Figure 82: Resource management screen

## 2) Change Affiliation

The OpenWMS allows users to change the collection owners of the resources.

### Add collection owner

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **resource**.
- iii. Select **Collection**.
- iv. Select the **resource**.
- v. Click on **Add collection owner**.
- vi. Click **OK** to confirm.
- vii. You will be presented with a list of collections in WMS. Select the **collection**. The resource belongs to two collection owners now.

### Change collection owner

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **resource**.

- iii. Select **Collection**.
- iv. Select the **resource**.
- v. Click on **Change collection owner**.
- vi. Click **OK** to confirm.
- vii. You will be presented with a list of collections in WMS. Select the **collection**. The resource DOES not belong to this collection owner now.

### Remove collection owner

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **resource**.
- iii. Select **Collection**.
- iv. Select the **resource**.
- v. Click on **Remove collection owner**.
- vi. Click **OK** to confirm.
- vii. You will be presented with a list of collections in WMS. Select the **collection**. The resource collection owner will be removed from the resource.

**RESOURCE MANAGEMENT**

[Clean Up](#)    [Change Affiliation](#)    [Edit Raw Xml](#)

Showing resources affiliated to this collection: **DO NOT DELETE-- KA TEST COLLECTION**. [Change Collection](#)

View: [METS](#) [TEXT](#)    [Remove collection owner](#)    [Add collection owner](#)    [Change collection owner](#)

	System ID	Resource Name (Total: 27; Closed: 6)	Status
<input type="checkbox"/>	60198	test	M
<input type="checkbox"/>	61383	theieitht	M / F
<input type="checkbox"/>	61498	test pdf server	M
<input type="checkbox"/>	62871	test R5.2.1	F
<input type="checkbox"/>	63064	TIF to PDF, DJVU test	M
<input type="checkbox"/>	63065	OCR test	M
<input type="checkbox"/>	64064	Ron's article: test for search XML	M
<input type="checkbox"/>	64065	Ron's article: test for search XML test 2	M

**Figure 83: Change affiliation screen**

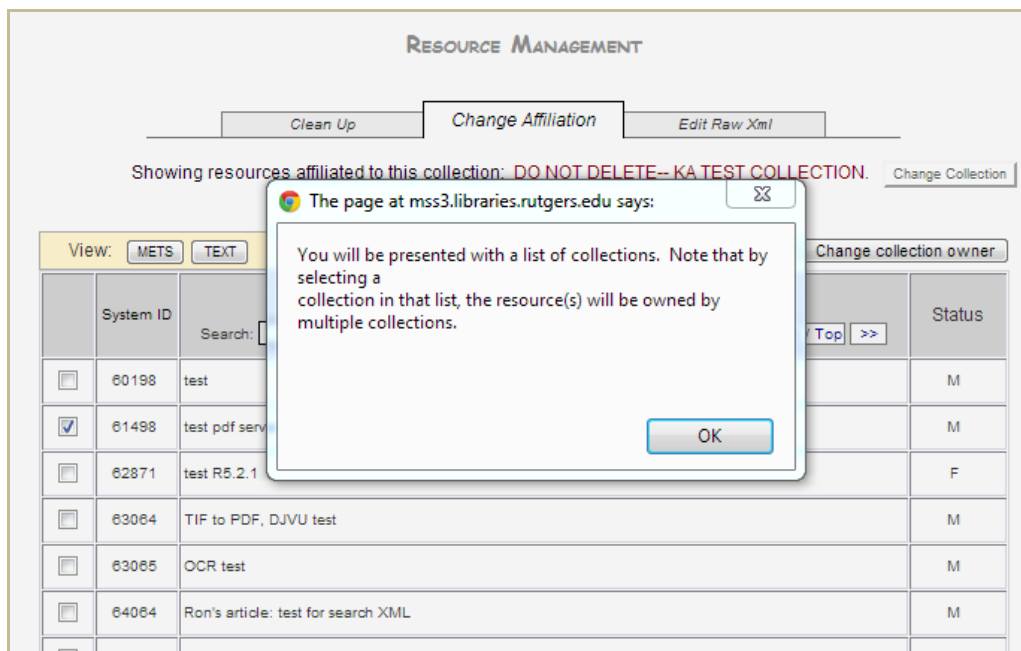


Figure 84: Change affiliation screen

### 3) Edit Raw XML

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **resource**.
- iii. Select **Edit Raw XML**.
- iv. Enter WMS **System ID**.
- v. Click **Retrieve**.
- vi. WMS will return the XML for this object in the window below. View the XML and identify the problematic character.
- vii. Replace the character and click **Submit**.

Figure 85: Edit Raw XML screen

#### 4) Owner Management

##### Add new organization

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **Owner**.
- iii. Select **Create New Organization**.
- iv. Enter organization information.
- v. Click **Save**.

##### Edit organization

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **Owner**.
- iii. Select the **organization** to edit.
- iv. Click **Edit**.
- v. Make changes.
- vi. Click **Save**.

##### Delete organization

- i. Select **Administration** from the Digital Object Workflow Management System main screen.
- ii. Select **Owner**.
- iii. Select the **organization** to delete.
- iv. Click **Delete**. Note: If there are resources in an organization, move them to another organization before deleting.

**OWNER MANAGEMENT**

	Owner
<input type="radio"/>	American Hungarian Foundation (New Brunswick, NJ)
<input type="radio"/>	American Labor Museum/Botto House National Landmark
<input type="radio"/>	Atlantic County Library System
<input type="radio"/>	Burlington County Historical Society
<input type="radio"/>	Chester Public Library
<input type="radio"/>	Clarence Dillon Public Library
<input type="radio"/>	Edison National Historic Site (West Orange, N.J.)
<input type="radio"/>	Egg Harbor City Historical Society
<input type="radio"/>	First Reformed Church of New Brunswick

**Figure 86: Organization management screen**

**OWNER MANAGEMENT**

	Owner
<input type="radio"/>	abuelhaj, Thea [ ]
<input type="radio"/>	Test, User [ ]
<input type="radio"/>	Jantz, Ron [ ]
<input type="radio"/>	Urban, Andrew [ ]
<input type="radio"/>	Marsh, David [ SAS - Italian, Rutgers University ]
<input type="radio"/>	Kiraz, George [ Beth Mardutho: The Syriac Institute ]

**Figure 87: Personal owner management screen**

Enter/Edit Organization Information

Organization ID:

ID Source:

ID Value:

Organization Name:

Organization Address:

Organization URL:

CNRI ID:

Contact Person:

Name:

Telephone:

Email:

EXIT

SAVE

Figure 88: Add new organization screen

### Enter/Edit Organization Information

Organization ID:	ID Source: <input type="text" value="MARC Org Code"/>
	ID Value: <input type="text" value="NjBuHi"/>
Organization Name:	<input type="text" value="Burlington County Historical Society"/>
Organization Address:	<input type="text"/>
Organization URL:	<input type="text"/>
CNRI ID:	<input type="text"/>
Contact Person:	
Name:	<input type="text"/>
Telephone:	<input type="text"/>
Email:	<input type="text"/>

Figure 89: Edit Organization screen

### Enter/Edit Personal Owner Information

Family Name:	<input type="text"/>
Given Name:	<input type="text"/>
Title:	<input type="text"/>
Affiliation:	<input type="text"/>
URL:	<input type="text"/>
Display form:	<input type="text"/>
Other info:	<input type="text"/>

Figure 90: Add personal owner screen

### Enter/Edit Personal Owner Information

Family Name:

Given Name:

Title:

Affiliation:

URL:

Display form:

Other info:

**Figure 91: Edit personal owner screen**

## 4. Admin Log

The OpenWMS logs administration activities in the Admin Log section. Activities such as create collection, edit collection, add/edit controlled vocabulary terms are written to the Admin Log file.

Admin log

Collection
Resource
Owner
User Process
Message Board

Administration Activities Log

User Name	Action	Date
Marker, Rhonda	Created collection: Historic Postcards of Bayonne, NJ	2013-03-29
Ananthan, Kalaivani	Changed collection hierarchy for: R51 test collection	2013-03-07
Marker, Rhonda	Created collection: Beth Mardutho Analytics	2013-03-05
Ananthan, Kalaivani	Created collection: Release Seven Point Zero Test	2013-03-04
Ananthan, Kalaivani	Created collection: Release seven point zero	2013-03-04
Ananthan, Kalaivani	Created collection: Eva Topping Collection	2013-02-15
Ananthan, Kalaivani	Created collection: Abrohom Nuro Collection	2013-02-15

**Figure 92: Admin Log screen**

## 5. User Process (Not implemented in this release)

## 6. Access Control



This feature allows you to setup temporary access restriction to selected or all WMS modules for all users. Select the WMS module you want to restrict access to, enter starting date/time and ending date/time, and User Message. Then click on **Submit**.

The screenshot displays the 'Digital Object Workflow Management System' interface. At the top, there's a dark blue header with the system name. Below it, a navigation bar includes links like 'Contact Us', 'Report Error', 'Help', 'Version', and a user profile '[ Ananthan, Kalaiva]'. A secondary navigation bar has 'Return to Metadata and Digital Object', 'Administration' (highlighted), 'Configuration', and 'User'. The main content area is titled 'WMS Administration' and features a sidebar with 'Collection', 'Resource', 'Owner', 'User Process Control', and 'Access Control' (highlighted in yellow). An 'Admin log' button is also present. The 'ACCESS RESTRICTION' section contains a form with the following fields: 'WMS module:' (a dropdown menu), 'Access Status:' (radio buttons for 'Access allowed' and 'Blocked'), 'Starting Date:' (YYYY-MM-DD format with a hint '(If empty, new status takes effect immediately)'), 'Starting Time:' (hh:mm:ss format with a hint '(If empty, new status takes effect at 00:00:01 on the starting date)'), 'Ending Date:' (YYYY-MM-DD format with a hint '(If empty, status has no date limit)'), 'Ending Time:' (hh:mm:ss format with a hint '(If empty, status will end at 23:59:59 on the ending date)'), and 'User Message:' (a large text area).

Figure 93: Access Control

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