DESIGNING AND USING NORMALIZATION RULES
TECHNICAL SEMINAR 2017 – CHICAGO, IL

CONNIE BRAUN | IMPLEMENTATION SERVICES MANAGER

Agenda

1. Introduction
2. Creating and Testing Normalization Rules
3. Creating Normalization Processes
4. Creating Sets and Running Jobs
5. Next Steps, Support Resources and Survey
Introductions

- Connie Braun, Implementation Services
Introduction

Normalization rules are created and used

• To change or update bibliographic or holdings metadata
• For various purposes and in different ways

User Roles

Cataloger, Catalog Manager and Catalog Administrator roles may create and manage normalization rules

Catalog Administrator role is required to associate normalization rules with import profiles
Objectives

By the end of this training session, you will be able to:

• Create various normalization rules
• Test a normalization rule to ensure that it is performing correctly
• Associate one or more normalization rules to an import process

Creating and Testing Normalization Rules
Normalization Rules

Are written in a specific syntax allowing cataloguing operators to create rules to:

- add fields and subfields
- remove fields and subfields
- modify text
- copy fields
- combine
- replace field tags
- change indicators

Example rule:

```plaintext
rule "Combine 650"
when
  (TRUE)
then
  combineFields "650" excluding "a,z"
end
```

Normalization Rules

May be applied to:
- individual bibliographic records, or,
- sets of records via bulk processing

Have the option to preview the outcome of applying the rule to a bibliographic record.
**Example 1**

New fields and subfields may be added

```plaintext
rule "Add field 901 with sub field a with text Gift from Class of 2017 if it doesn’t exist"
    when
        not exists "901.a.Gift from Class of 2017"
    then
        addField "901.a.Gift from Class of 2017"
end
```

**Example 2**

Fields and/or subfields may be removed entirely

```plaintext
rule "Remove subfields b and c from 260" when (TRUE)
    then
        removeSubField "260.b"
        removeSubField "260.c"
end
```
Example 3

Replace text in fields or subfields

```plaintext
rule "Replace text colors with colours in 650 any subfield (unconditional)"
when
  (TRUE)
then
  replaceContents "650.*.colors" with "colours"
end
```

Getting Help

Working with Normalization Rules

PERMISSIONS: To work with normalization rules, you must have the following role:
- Catalog Administrator

Normalization rules provide the building blocks for making enhancements to MARC 21 records. These enhancements can be made to individual records in the MD Editor (Edit > Enhance the Record) or to a group of records using sets.

In order to process record enhancements to an individual record, use the Enhance Record option (refer to the section MD Editor Menu and Toolbar Options and Enhance the Record) or Apply Changes to an individual record when you use the Preview normalization rule capability (see the procedure: To preview the outcome of a rule file).

In order to process record enhancements to a set of records, you need to create a process using the MARC Droid Normalization process (see Working with Normalization Processes) and specify the normalization rule that you create with the MD Editor (refer to the procedure: To create a new normalization rule file). Once you have created the process, you can, subsequently, run a job using that process (see Running Manual Jobs on Defined Sets).
Sample Normalization Rule

Hands-On 1

Create a normalization rule to add a 901 field with subfield a and specific text when it does not exist

1 Within the Metadata editor and go to File > New > Normalization Rules.
2 For Name and Description, add descriptive details such as “Add field 901 with subfield a and text, Class Gift, if it doesn’t exist.”
3 Indicate whether or not the rule should be Shared, Enable the rule and Save it.
4 Edit the rule, deleting the second rule to add data.
   rule “add field 901 with subfield a and text Class Gift, if it does not exist”
   when
      not exists "901.a.Class Gift"
   then
      Add "901.a.Class Gift"
   end
5 Save the edited normalization rule.
# Hands-On 2

Create a normalization rule to copy contents of a field from one to another

<table>
<thead>
<tr>
<th>1</th>
<th>Open the Metadata editor and go to File &gt; New &gt; Normalization Rules.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>For Name and Description, add descriptive details such as “Copy the 001 to the 035 subfield a (001 does not have a subfield).”</td>
</tr>
<tr>
<td>3</td>
<td>Indicate whether or not the rule should be Shared, Enable the rule and Save it.</td>
</tr>
</tbody>
</table>
| 4 | Enter the following text in the rule canvas:  

```  
rule "Copy 001 Field to 035 Field"  
when  
(TRUE)  
then  
copyField "001" to "035.a"  
end  
```
| 5 | Save the edited normalization rule. |

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# Hands-On 3

Create a normalization rule using existing rule syntax to replace text

<table>
<thead>
<tr>
<th>1</th>
<th>Within the Metadata editor and go to File &gt; New &gt; Normalization Rules.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>For Name and Description, add descriptive details such as “Replace pbk.) with paperback) in 020 $$a (unconditional)”</td>
</tr>
<tr>
<td>3</td>
<td>Indicate whether or not the rule should be Shared. Enable the rule. Save the rule.</td>
</tr>
</tbody>
</table>
| 4 | Enter the following text in the rule canvas:  

```  
rule "Replace text pbk.) with paperback 020 $$a (unconditional)"  
when  
(TRUE)  
then  
replaceContents "020.a.pbk)" with "paperback)"  
end  
```
| 5 | Save the edited normalization rule. |
**Hands-On 4**

Create a normalization rule using existing rule syntax to delete 9XX fields

1. Within the Metadata editor and go to File > New > Normalization Rules.
2. For Name and Description, add descriptive details such as “Delete all 9XX fields.”
3. Indicate whether or not the rule should be Shared. Enable the rule. Save the rule.
4. Enter the following text in the rule canvas:
   ```
   rule "Remove all 9XX" when (TRUE) then removeField "9**" end
   ```
5. Save the edited normalization rule.

**Testing Normalization Rules**

1. Using the Repository Search, locate and open a record on which to test the rule in the Metadata Editor.
2. Switch to split editor mode with the record in the left pane.
3. Click on the blank right pane of the split editor.
4. Go to the Rules tab, select the normalization rule you want to test and click edit to open the rule in right pane.
5. Test the rule by clicking on the **Preview** button.
Testing Normalization Rules

The Bib record against which the normalization rule will be tested is open in left pane.

Edit the normalization rule

The normalization rule that will be previewed

Back to normalization rules = return to the rule for further editing

Apply Changes = update the record
Hands-On 5

### Test the normalization rules created in Hands-On 1 – 4

1. For each rule, confirm that the rule you are working with is functioning as expected.
2. Edit a rule further if there is more that you want to change.
3. When ready, apply the change to the record.

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Creating Normalization Processes
Normalization Rule Processes

- Normalization rules, created in the Metadata Editor, may be used in processes that focus on global data change.
- Normalization rule processes, which are created by a Catalog Administrator, may include one or more normalization rules.
Click Add to Selection to include one or more processes in group of available processes.
Hands-On 6

Create a normalization rule process using one of the rules created in Hands-On 1 – 4

1. Go to Resource Management > Configuration > Metadata Configuration and click on MARC21 Bibliographic. From the Profile Details page switch to the Normalization tab and click on the Add Process button.

2. Give a name and description to the new process. Click on the Next button to go to the next step.

3. Select “MarcDroolNormalization” and click the Add to Selection button. In a situation where you want to include multiple different normalization rules in one process, simply include the number of required “MarcDroolNormalization” entries.

4. Select the normalization rule that you want to include in the process. If including more than one normalization rule, one Drools File Keys exists for each “MarcDroolNormalization” added in Step 2. The last step in creating this process is to Save it.

Creating Sets and Running Jobs Using Normalization Processes
Running Normalization Processes

Normalization processes may be run...

1. Via **Enhance the record** option in Metadata editor
2. For a set of records assembled via **Manage Sets** function
3. When adding a file of records via **Import** function
4. While importing individual records via **External Search**

Enhance the Record
Enhance the Record

Choose: Add 245 s f h [Video]
Normalization Type:
- Add 245 s f h [Video]
- Marc21 Bib Initial Normalization
- Marc21 Bib normalize on save
- Marc21 Bib Re-sequence
- Marc21 Bib Re-sequence And Clear empty fields
- Remove Vendor Data 949
- Remove Vendor Data 980 981 993
- Suppress Bib records from discovery
- Synchronize Bib records with external catalog

Enhance the Record

Choose: Add 245 s f h [Video]
Normalization Type:
- Add 245 s f h [Video]

035  $80 (DLC) 91032924
035  $8a 1543875
035  $8a (Tn)64682-train20072_c26db
040  $8a DLC $8c DLC $8d DLC
043  $8a t-us---
060  0  0  $8a HE8700.8 $8b 053 1992
082  0  0  $8a 584 56/1 $82 20
100  1  $8a Owen, Bruce M.
245  1  0  $8a Video economics / $8c Bruce M. Owen, Steven S. Wildman
Hands-On 7

Apply a normalization rule by *enhancing the record*

1. Open any Bibliographic record in the Metadata editor.
2. Go to **Edit menu** and select **Enhance the Record** (Ctrl+Alt+E).
3. Select from among the available processes.
4. Click on **OK** button to run the process.

Normalization Job for a Set

- Each process may be run on a set of records
- Assumes processes have been created
- Choose “Run Process” from within Resource Configuration menu
Normalization Job for a Set

Create Job - Select Job to Run

Job List

Type: Marc 21 Bib normalization

Create Job - Select Set

Content Type: All

Create Job - Job Details and Schedule

General Information

Job Name: Add video

Schedule Job

As soon as possible
Normalization Job for a Set

Hands-On 8

Create a set and run the process

1. Go to Manage Sets.
2. Create an Itemized set of three or four physical items against which to run a process.
3. Run the process.
4. View and confirm the changes to the records.
Normalization During File Import

When an input file is imported using this profile, this normalization process will occur as part of the import activities.
Normalization During File Import
External Search Import

1. **Alma**
   - **Templates**
     - **Records**
       - **MARC21**
         - **Bibliographic**
           - **Dublin Core**

2. **Process Details**
   - **General Information**
     - **Business Entity**
     - **Bibliographic title**
     - **Type**
     - **Marc 21 Bib normalization**
     - **Name**
     - **Add 800 copied from WorldCat**
     - **Marc Direct Normalization**
     - **Create File Key**

3. **Search Cataloging Profile**
   - **WorldCat**

4. **External Search Import**
External Search Import

Next Steps and Support Resources
Next Steps and Support Resources

From the Knowledge Center,


At the bottom of this page, see the Word document containing nearly 70 examples.

Q & A

Any Questions?
Session Survey Evaluation

Please use the following link https://www.surveymonkey.com/r/techsem2017 to provide feedback on your sessions.

THANK YOU