

# UNDERSTANDING THE BASICS OF INDICATION RULES

SUNY Library Shared Services  
Maggie McGee



# Roles Required To Work With Indication Rules

**Role Required** – one of the following roles is required to work with indication rules

- Cataloger
- Catalog Manager
- Catalog Administrator

# What are Indication Rules?

- Indication rules are used to identify bibliographic (bib) records that need to be edited or enhanced
- Indication Rules are used to filter a set
  - A new set is created when a set is filtered
  - The new set is a subset of the original set based on the results of the indication rule
- Indication rules can only be applied to physical titles, all titles, and electronic titles sets
- Indication rules can be applied to:
  - **Bib records**
  - Delete holding records with no items job
  - Publishing profiles
  - Import profiles details
- **Indication rules are used for MARC bibliographic records**
  - XML indication rules are used for Dublin Core

# Indication Rules

- Indication rules use flexible drools logic like normalization rules
  - Flexible drools language is based on JBOSS Rules engine
- Normalization rules syntax contains:
  - One or more rules
    - The priority (or salience) factor when defining a rule that contains multiple rules
      - Only necessary when the fields are the same in the rule
  - A Condition
    - Something that must be true for x,y,z to occur
  - One or more actions
    - Actions are applied to a record if the record meets the condition
    - Each action within a rule can be performed on a single field within a record
    - Actions are performed in the order in which they appear within the rule.

# Indication Rules - Conditions

The following are conditions that can be used in an indication rule. They are all true if:

1. TRUE – **not used with indication rules**
2. not exists – for data fields
3. not existsControl – for control fields
4. exists – for control fields
5. existsControl – for control fields
6. existsMoreThanOnce – for data fields

CONDITION at record level

The following are the possible condition options. See the next section ([Conditions](#)) for important information.

- TRUE - always true
- not exists "{element}" - true if the element does not exist (for data fields)
- not existsControl "{element}" - true if the element does not exist (for control fields)
- exists "{element}" - true if the element exists at least once (for data fields)
- existsControl "{element}" - true if the element exists at least once (for control fields)
- existsMoreThanOnce "{element}" - true if the element exists more than once. See [Managing Search Queries and Sets](#) for an example of the use of this condition.
- contains - true if the element contains a value. Used for merge rules.

# Indication Rules - Actions

Indication rules do not change content. They only identify records that meet the conditions in the indication rule

1. set indication is the only action that can be applied to an indication rule
  - a) The action can be set to:
    - a) True: **set indication."true"** or
    - b) False: **set indication."false"**
  - b) When testing an indication rule:
    - i. If the condition is met, the result is "true"
    - ii. If the condition is not met, the result is "false"

The image displays two screenshots of a library system interface, likely for testing indication rules. Both screenshots show a list of records with fields like LDR, 001, 005, 008, 019, 020, 035, and 040. The records contain alphanumeric strings, including call numbers and identifiers.

**Left Screenshot:** Shows a rule configuration for "rule '040 lb eng exist'". The rule is defined as:  
when exists "040.b.eng"  
then set indication."true"  
end  
An "Information" dialog box is open, displaying the result "true".

**Right Screenshot:** Shows a rule configuration for "rule '040 lb eng does not exist'". The rule is defined as:  
when not exists "040.b.eng"  
then set indication."true"  
end  
An "Information" dialog box is open, displaying the result "false".

# Indication Rules – Control Fields

- 00X fields are control fields in a MARC bib record, which include the LDR (leader)
- Controls fields require specific syntax in indication rules
  1. Brackets are used to enclose control field positions separated by a comma
    - a) Example for encoding level position 17 in the LDR; {17,1}
  2. The first number in the brackets represent the position of the fixed fields
  3. The second number indicates the length

The screenshot shows a MARC record editor interface. At the top, a warning banner reads: "You have 2 warning(s) in your record - Draft saved at 10:31:42 PM." Below this, the record details are shown: "Bibliographic Working on - Kābē / Shōchiku e (991058876116604801), Created by NUTH@01SUNY\_GEN (07/09/2019 11:12:05 EDT), Modified by adminpsb@01SUNY\_GEN (10/15/2019 10:31:47 EDT)".

The LDR field is expanded, showing various control fields with their values and dropdown menus. The "Encoding level(17)" field is highlighted with a red box, showing a value of "7 - Minimum". Other visible fields include "Logical record length (0-4)" with value "06048", "Record status(5)" with value "c - Correcter", "Type of record(6)" with value "g - Projecte", "Bibliographic level(7)" with value "m - Mono", "Type of control(8)" with value "# - No speci", "Character coding scheme(9)" with value "a - UCS/Uni", "Indicator count(10)" with value "2", "Subfield code count(11)" with value "2", "Base address of data (12-16)" with value "01117", "Descriptive cataloging form(18)" with value "i - ISBD pun", "Multipart resource record level(19)" with value "# - Not spec", "Length of the starting-character-position portion (20)" with value "4 - Number", "Length of the implementation-defined portion (21)" with value "5 - Number", and "Undefined Entry map character position(23)" with value "0 - Undefi".

On the right side of the editor, a rule editor window is open, showing the following rule text:

```
GEN - 007 contains {4,1} v for DVDs  
  
rule "fixed field LDR contains 17,1|7 minimum level"  
when  
existsControl "LDR {17,1}.7"  
then  
set indication."true"  
end
```

# Indication Rules – Wild Cards & Special Characters

1. # (hash tag)
  - a) Used at the beginning of a comment line
  - b) Ignored by the rule
2. \* (asterisk)
  - a) Is used to match a string of any length or value including subfields
  - b) is used before, after, or both
3. \ (backslash) -
  - a) Must be used in odd numbers
  - b) Backslashes are usually used to replace content
  - c) If the text of a subfields ends with a period (.), use four backslashes to match the period, \\ \\.
4. . (period)
  - a) Used between fields, subfields, and content
5. Subfield (\$\$) delimiters cannot be used in rules
6. Wildcards cannot be used as the first character of a condition or value



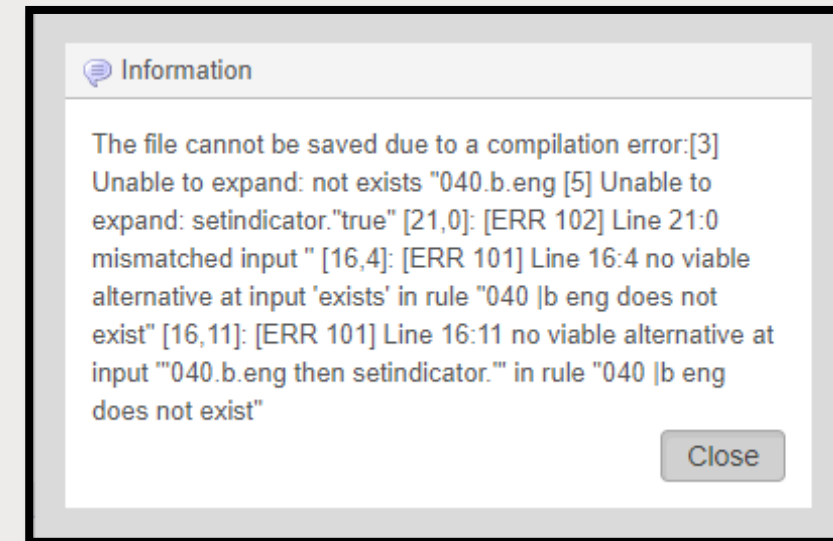
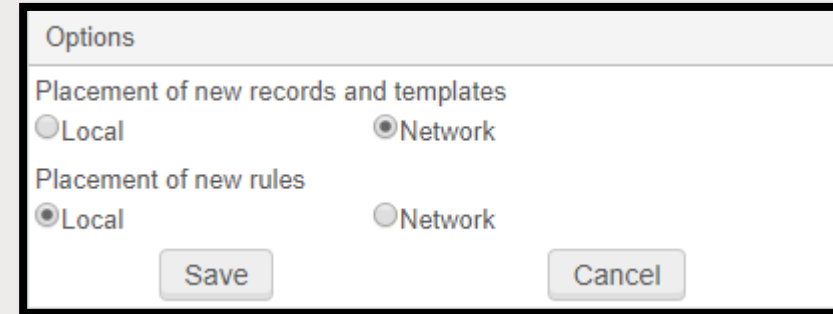
# Indication Rule Steps

1. Create the indication rule
2. Test the indication rule
3. Run the indication rule against a set

# STEP 1: CREATE THE INDICATION RULE

# Create the Indication Rule

- Placement of new rule
  - Local
- To view the placement of the new rule in the MD Editor:
  - *File>Options*
- Create a rule:
  - Duplicate an existing indication rule and edit it
  - Write a new rule in the MD Editor
- Syntax error will prevent a rule from saving in the MD Editor:
  - Correct the syntax
  - **Save** the rule



# Create the Indication Rule

- Indication rules contain:
  - **Rule**
    - rule “338 |a videodisc set indication to true”
  - when
  - **Condition**
    - exists “338.a.videodisc”
  - then
  - **Action**
    - set indication.“true”
  - end

## SLSS TEST INDICATION RULE

```
rule " "  
when  
<Condition>  
then  
<Action>  
end
```

## SLSS - DVD indication rule

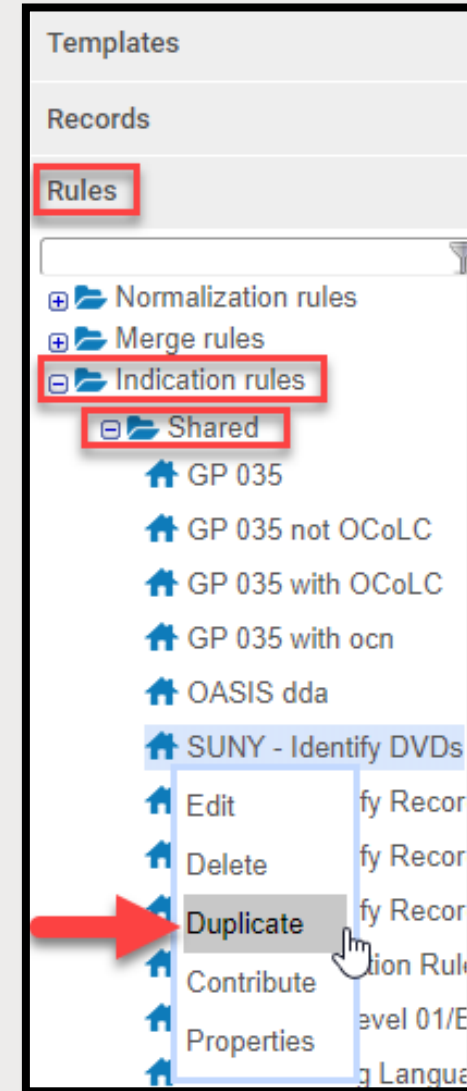
```
rule "338 |a videodisc set indication to true"  
when  
exists "338.a.videodisc"  
then  
set indication."true"  
end
```



CREATE AN INDICATION  
RULE FROM AN EXISTING  
RULE

# Create an Indication Rule From an Existing Rule

- Duplicate an existing indication rule from the Shared Folder:
  1. Go to *Resources>Cataloging>Open MD Editor*
  2. Verify the “*Placement of new rules*” is set to **Local**
    - a) Go to *File>Options*
  3. Click on **Rules** on the left-side of the MD Editor
  4. Expand **Indication Rules**
  5. Expand the **Shared** folder
  6. Click on the desired rule
  7. Click **Duplicate**



# Create an Indication Rule From an Existing Rule

## ■ Duplicate an existing indication rule from the Shared Folder:

8. Indication rules properties screen displays
  - a) Add the campus 3 letter identifier to the beginning of the name and rename the rule (if applicable)
  - b) Shared (so others can use)
  - c) Enabled
  - d) Click **Save**
9. Edit the rule (if necessary)
10. Click **Save**
11. **File>Exit**
12. Click **Yes** when the confirmation displays

Indication rules properties

Name\* GEN Copy Of SLSS - DVD indication rule

Description:\* Indication rule for DVDs

Private  Shared

Enabled

Created by adminpsb (January 20, 2020)

Last updated by adminpsb@01SUNY\_GEN (January 20, 2020)

Save Cancel

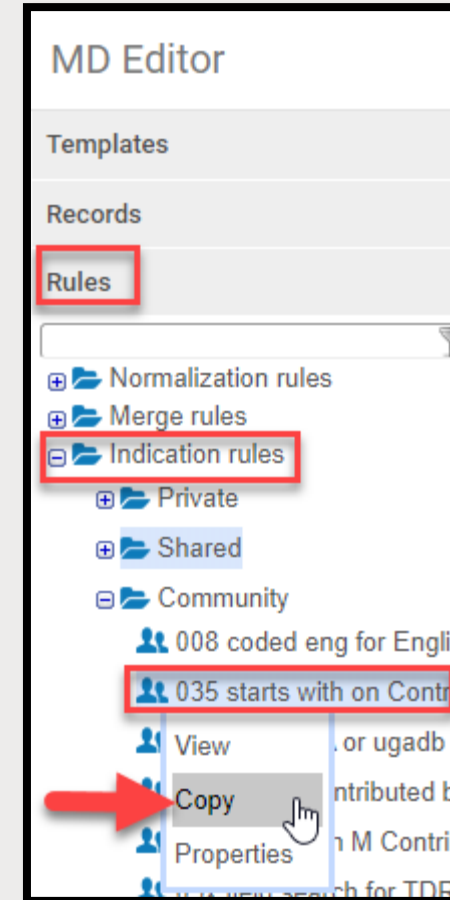
Confirmation required

Do you want to save normalization rules before closing?

Yes Cancel

# Create an Indication Rule From an Existing Rule

- Duplicate an existing indication rule from the Community Folder:
  1. Go to *Resources>Cataloging>Open MD Editor*
  2. Verify the “*Placement of new rules*” is set to **Local**
    - a) Go to *File>Options*
  3. Click on **Rules** on the left-side of the MD Editor
  4. Expand **Indication Rules**
  5. Expand the **Community** folder
  6. Click on the desired rule
  7. Click **Copy**





# Create an Indication Rule From an Existing Rule

- Duplicate an existing indication rule from the Community Folder:

8. Indication rules properties screen displays
  - a) Add the campus 3 letter identifier to the beginning of the name and rename the rule (if applicable)
  - b) Shared (so others can use)
  - c) Enabled
  - d) Click **Save**
9. Edit the rule (if necessary)
10. Click **Save**
11. **File>Exit**
12. Click **Yes** when the confirmation displays

Normalization rules properties

Name\* GEN - TEST COPY 520 existe

Description\* 520 existe

Private  Shared

Enabled

Created by System (December 12, 2018)

Last updated by System (December 12, 2018)

Contributed by Consejo Superior de Investigaciones Cientificas (CSIC)

Contact name URICI04, Biblioteca

Contact email cbic@bib.csic.es

Save Cancel

Confirmation required

Do you want to save normalization rules before closing ?

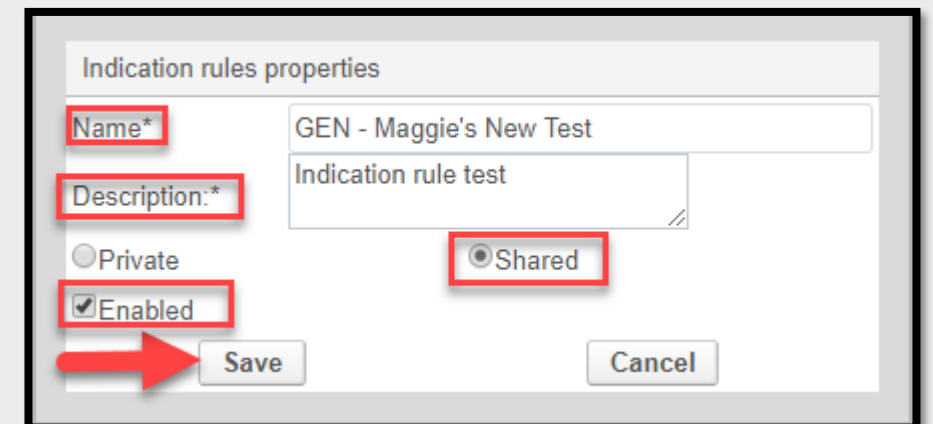
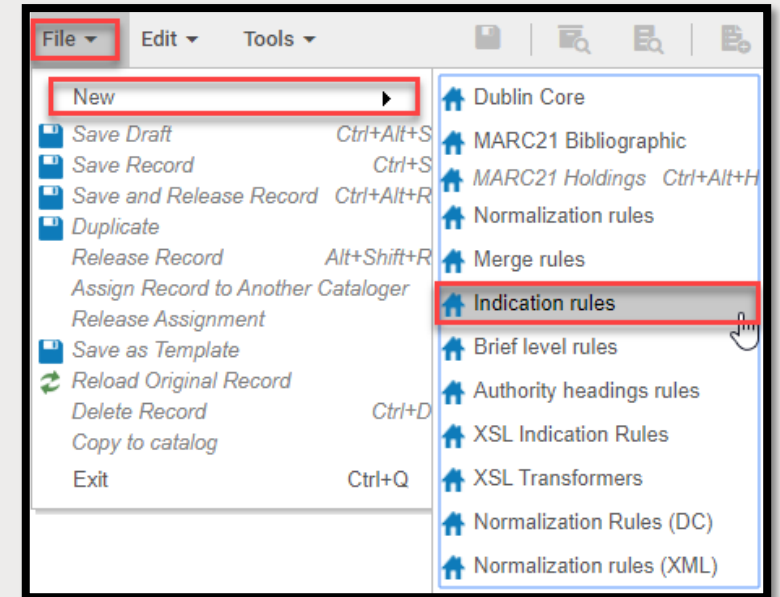
Yes Cancel



# CREATE A NEW INDICATION RULE

# Create a New Indication Rule

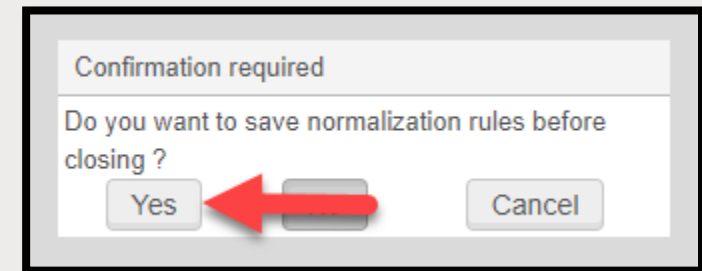
1. Go to *Resources>Cataloging>Open MD Editor*
2. Verify the “*Placement of new rules*” is set to the correct zone
3. Click *File>New>Indication Rule*
4. Indication rule properties box opens
  - a) Name: name the rule beginning with the campus 3 letter identifier
  - b) Description: add a description
  - c) Click on the **Shared** radio button
  - d) Click in the check box next to **Enabled**
  - e) Click **Save**



# Create a New Indication Rule

1. Type in the indication rule using the following pattern:
  - a) **Rule**
  - b) when
  - c) **Condition**
  - d) then
  - e) **Action**
  - f) end
5. Click the **Save** button
6. Click **File>Exit**
7. Click **Yes** when the confirmation displays

```
SLSS - DVD indication rule  
  
rule "338 [a videodisc set indication to true"  
when  
exists "338.a.videodisc"  
then  
set indication."true"  
end
```





# EXAMPLES OF HOW TO WRITE A BASIC INDICATION RULE

# Examples of How to Write a Basic Indication Rule

**Example: Rule to identify bib records without MARC 490 \$a \*mathematics\***

rule “identify records with MARC 490 | a | mathematics”

when

exists “490.a.\*mathematics\*”

then

set indication.“true”

end

**Example: Rule to identify bib records without MARC 338 \$a videodisc**

rule “identify records without 040 | b eng”

when

not exists “040.b.eng”

then

set indication.“true”

end

# Examples of How to Write a Basic Indication Rule

**Example: Rule to identify DVD records without v in control field 007 position 4**

rule “fixed field 007 not contain 4,1,|v for DVD”

when

not existsControl “007.{4,1}.v”

then

set indication.“true”

end

**Example: Rule to identify DVD records with v in control field 007 position 4**

rule “fixed field 007 contains 4,1|v for DVD”

when

existsControl “007.{4,1}.v”

then

Set indication.“true”

end

# Examples of How to Write a Basic Indication Rule

**Example: Identify records where MARC 246 exists more than once**

rule “Retrieve all records which contain two occurrences of MARC 300”

when

existsMoreThanOnce “246”

then

set indication. “true”

end

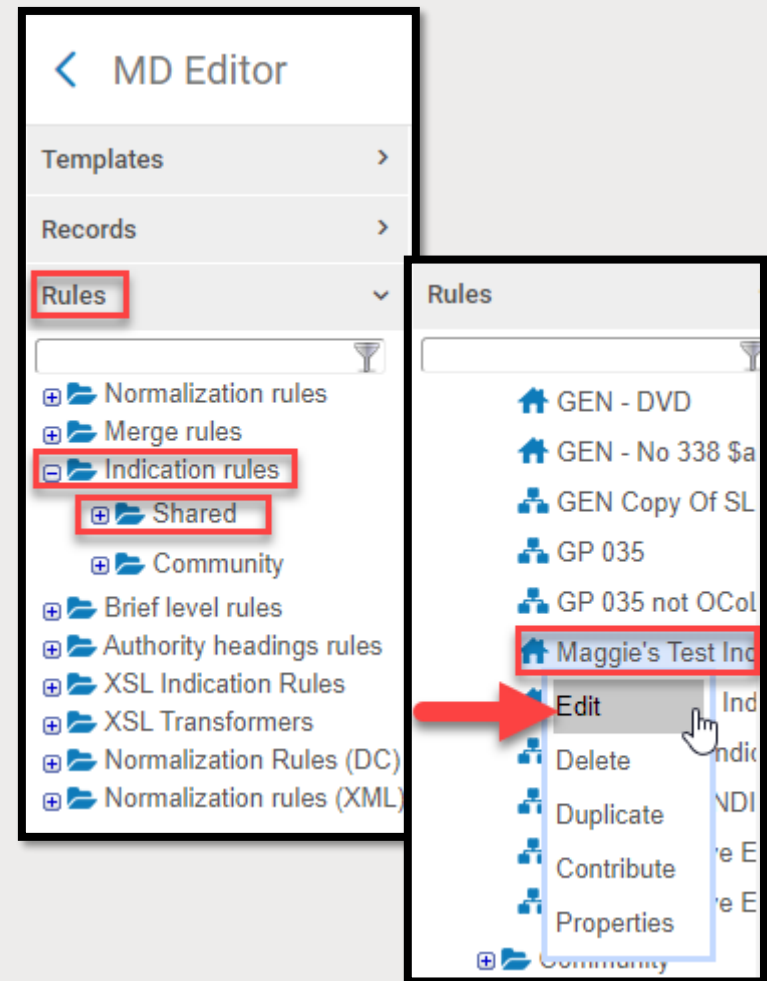
**Please Note:** The way the rule is written is very important



# STEP 2: TEST THE INDICATION RULE

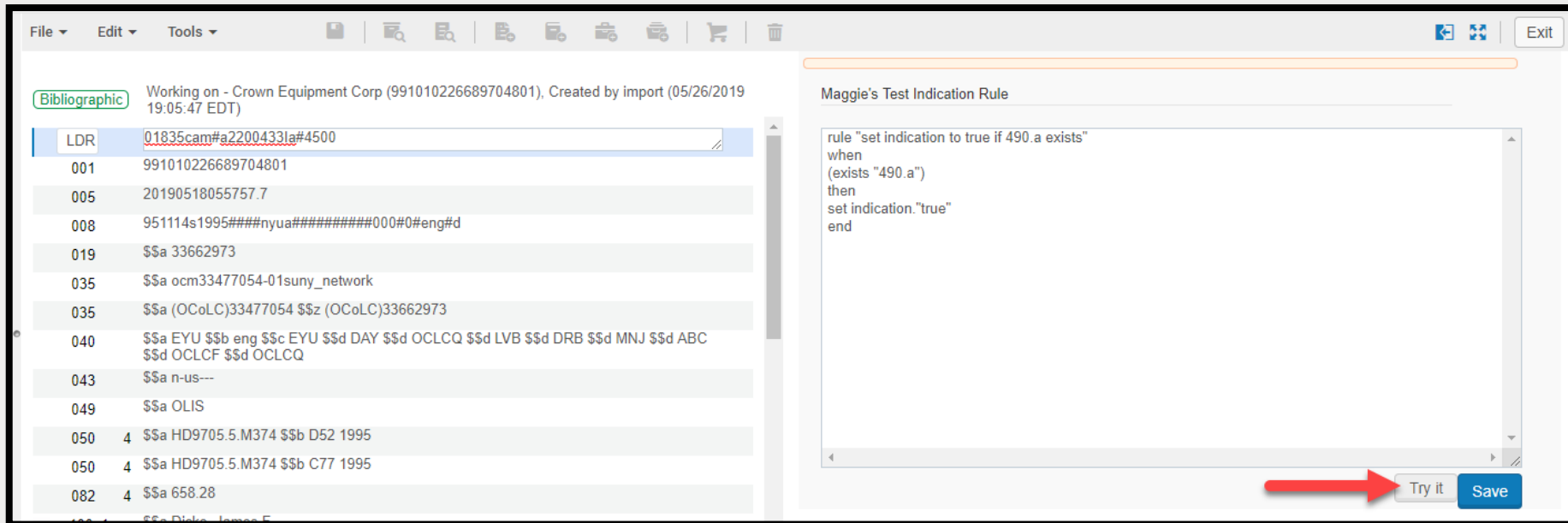
# Test the Indication Rule

1. Open a bib record in the MD Editor
2. Click on the **Split Screen** icon
3. Click on the right-side of the MD Editor
4. Click on *Rules>Indication Rules>Shared Folder*
5. Click on the indication rule being tested
6. Click *Edit*



# Test the Indication Rule

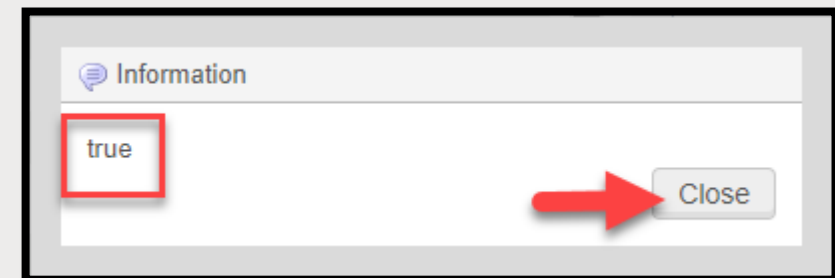
## 7. Click *Try It*



## 8. An information box will appear:

- True – if the record meets the condition(s)
- False – if the record does not meet the condition(s)

## 9. Click *Close* from the confirmation box

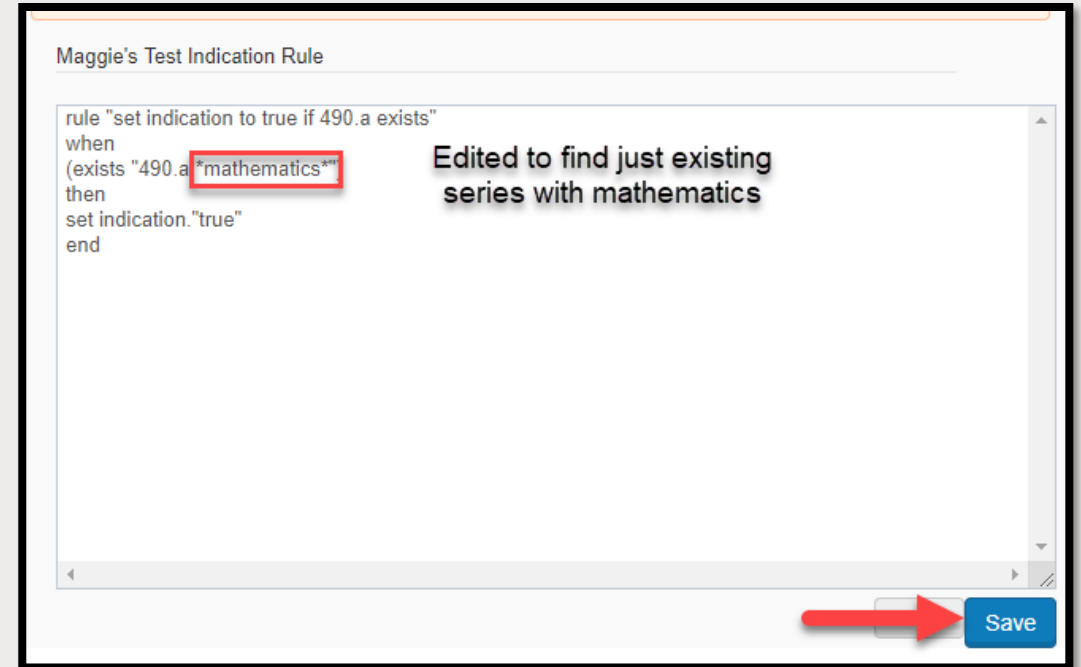


# Test the Indication Rule

9. Edit the rule and click *Try It* again if the rule does not work as expected
  - a) Click **Save** (if you had to edit the rule)
10. Click on the left-side of the MD Editor (bib record)
11. Click on the **Split Screen** icon



12. Click *File>Release Record* (Ctrl+Shift+R)

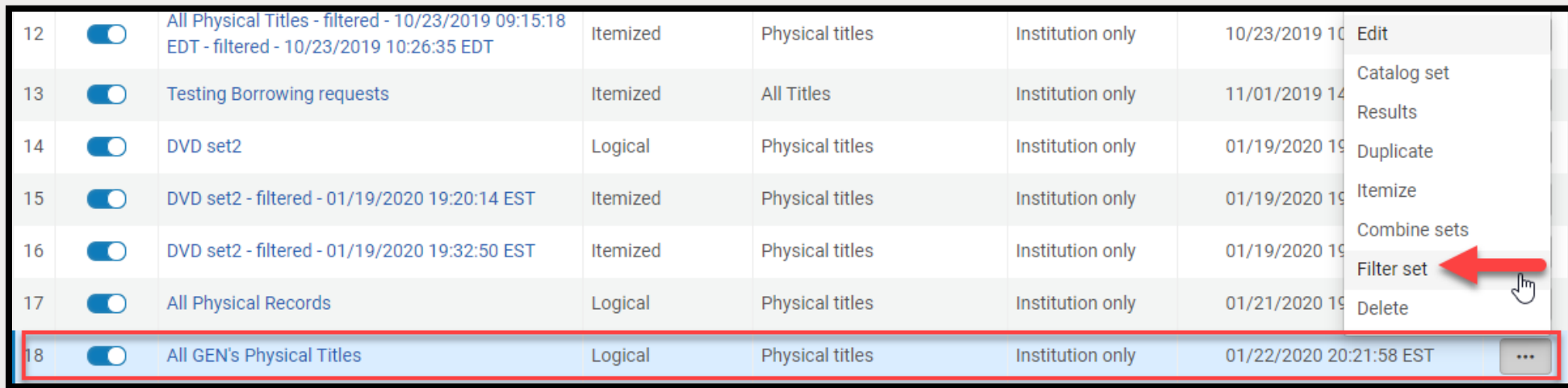


# STEP 3: APPLY THE INDICATION RULE TO A SET

# Apply the Indication Rule to a Set

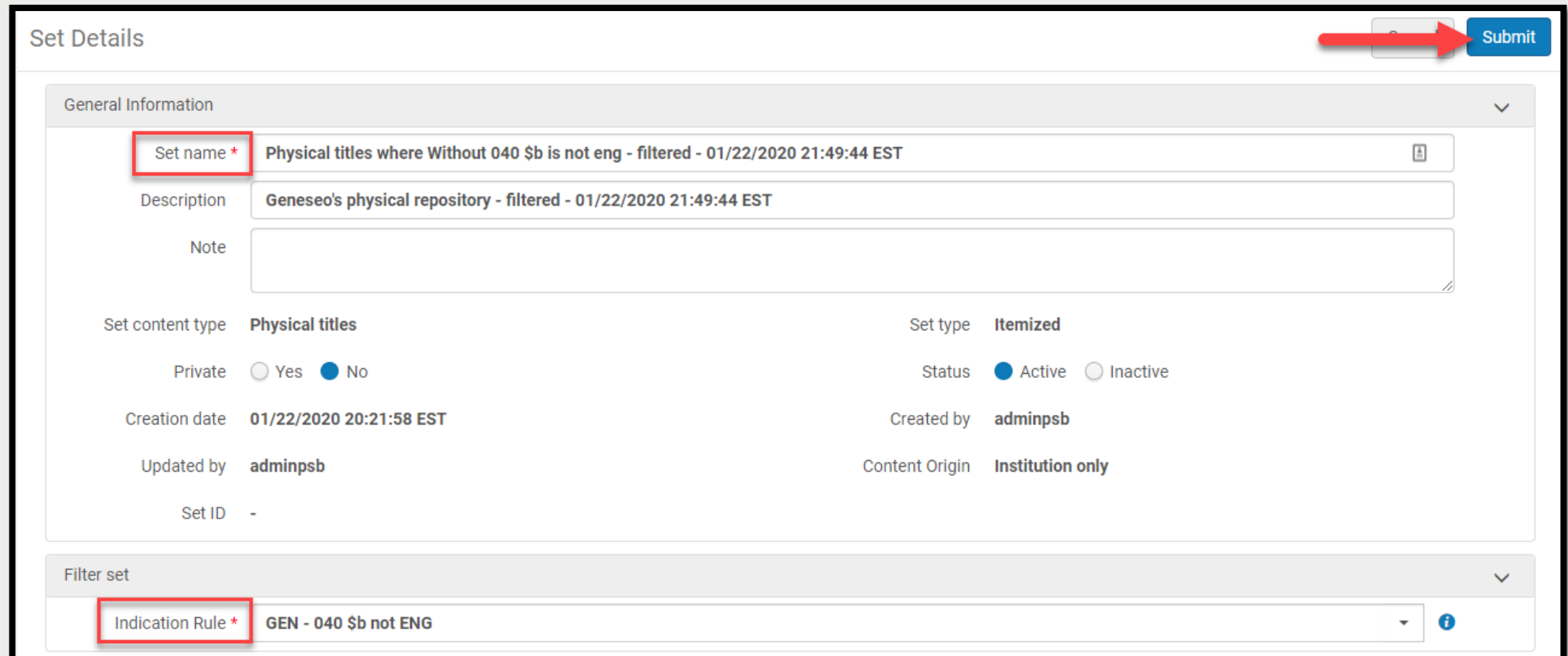
1. Create a set or use an existing set
  - a) *There are two ways to create a set:*
    - i. Repository search (logical set)
    - ii. External file (itemized)
2. Go to **Admin>Manage Jobs and Sets>Manage Sets**
3. Click **Filter** from the ellipses of the desired set

12	<input checked="" type="checkbox"/>	All Physical Titles - filtered - 10/23/2019 09:15:18 EDT - filtered - 10/23/2019 10:26:35 EDT	Itemized	Physical titles	Institution only	10/23/2019 10:26:35 EDT	Edit
13	<input checked="" type="checkbox"/>	Testing Borrowing requests	Itemized	All Titles	Institution only	11/01/2019 14:00:00 EDT	Catalog set
14	<input checked="" type="checkbox"/>	DVD set2	Logical	Physical titles	Institution only	01/19/2020 19:20:14 EST	Results
15	<input checked="" type="checkbox"/>	DVD set2 - filtered - 01/19/2020 19:20:14 EST	Itemized	Physical titles	Institution only	01/19/2020 19:20:14 EST	Duplicate
16	<input checked="" type="checkbox"/>	DVD set2 - filtered - 01/19/2020 19:32:50 EST	Itemized	Physical titles	Institution only	01/19/2020 19:32:50 EST	Itemize
17	<input checked="" type="checkbox"/>	All Physical Records	Logical	Physical titles	Institution only	01/21/2020 19:00:00 EDT	Combine sets
18	<input checked="" type="checkbox"/>	All GEN's Physical Titles	Logical	Physical titles	Institution only	01/22/2020 20:21:58 EST	Filter set



# Apply the Indication Rule to a Set

4. Set Details Screen opens
  - a) Rename the set to something identifiable
  - b) Select the Indication Rule from the drop-down menu
  - c) Click **Submit**



The screenshot shows the 'Set Details' form. A red box highlights the 'Set name \*' field, which contains the text 'Physical titles where Without 040 \$b is not eng - filtered - 01/22/2020 21:49:44 EST'. Another red box highlights the 'Indication Rule \*' field, which contains the text 'GEN - 040 \$b not ENG'. A red arrow points to the 'Submit' button in the top right corner. The form includes sections for 'General Information' and 'Filter set'. The 'General Information' section contains fields for 'Set name', 'Description', and 'Note', along with metadata like 'Set content type', 'Set type', 'Private', 'Creation date', 'Updated by', and 'Set ID'. The 'Filter set' section contains the 'Indication Rule' field. The 'Submit' button is a blue button with white text.

Set Details Submit

General Information

Set name \* Physical titles where Without 040 \$b is not eng - filtered - 01/22/2020 21:49:44 EST

Description Geneseo's physical repository - filtered - 01/22/2020 21:49:44 EST

Note

Set content type Physical titles Set type Itemized

Private  Yes  No Status  Active  Inactive

Creation date 01/22/2020 20:21:58 EST Created by adminpsb

Updated by adminpsb Content Origin Institution only

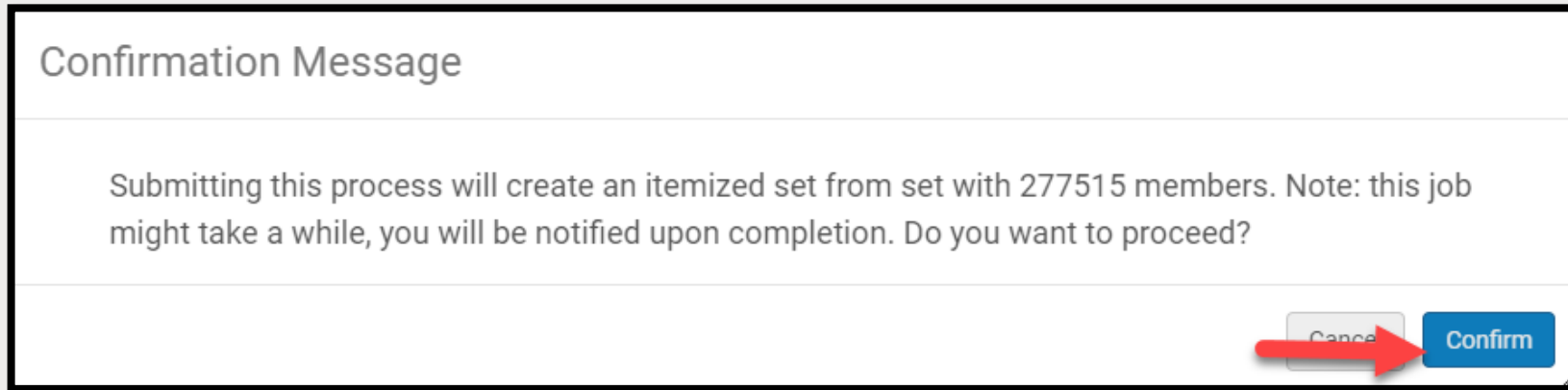
Set ID -

Filter set

Indication Rule \* GEN - 040 \$b not ENG

# Apply the Indication Rule to a Set

5. Click **Confirm** when the Confirmation Message pop-up appears



6. The job will run
7. Go to **Admin>Manage Jobs and Sets>Manage Sets** to refresh



# Apply the Indication Rule to a Set

8. Click **Members** from the ellipses to view the filtered records

8	<input checked="" type="checkbox"/>	DVD filter test	Logical	Physical titles	Institution only	10/15/2019 13	Edit
9	<input checked="" type="checkbox"/>	All Physical Titles	Logical	Physical titles	Institution only	10/23/2019 09	Catalog set
10	<input checked="" type="checkbox"/>	Testing Borrowing requests	Itemized	All Titles	Institution only	11/01/2019 14	Members 
11	<input checked="" type="checkbox"/>	All Physical Records	Logical	Physical titles	Institution only	01/21/2020 19	Duplicate 
12	<input checked="" type="checkbox"/>	All GEN's Physical Titles	Logical	Physical titles	Institution only	01/22/2020 20	Combine sets
							Filter set
							Delete
13	<input checked="" type="checkbox"/>	Physical Titles where 040 \$b is not eng	Itemized	Physical titles	Institution only	01/22/2020 20:42:08 EST	...

A large blue L-shaped graphic is positioned on the left side of the slide, consisting of a vertical bar and a horizontal bar that meet at a right angle. A second, smaller blue L-shaped graphic is positioned on the right side of the slide, also consisting of a vertical bar and a horizontal bar meeting at a right angle.

CREATE A SET EXAMPLE  
FOR A REPOSITORY SEARCH

# Create a Set Example – Repository Search

1. Perform a repository search from the IZ
  - a) for *Physical Titles: Titles: \** to retrieve all physical records in the IZ



A search bar interface with a blue button on the left labeled 'Physical titles' with a downward arrow. To its right is a dropdown menu showing 'Title' with a downward arrow, followed by an asterisk '\*'. On the far right, there is a close button 'x' and a search button with a magnifying glass icon.

- b) Perform an advanced search by Physical location to limit sets to a location



An advanced search form for 'Physical titles'. It features a dropdown for 'Permanent physical location' set to 'Equals', and a multi-select dropdown for 'Milne Library' containing 'Special Collections - Rare-XSPEC (XSPEC)'. There are plus and share icons to the right of the dropdown. At the bottom right, there are 'Clear form' and 'Search' buttons.

2. Click **Save** query



Search results for 'Physical Titles (1 - 20 of 277,515)'. The search bar at the top shows 'Physical titles', 'Title', and '\*'. A red arrow points to a 'Save Query' button on the right side of the results area. Below the results, there is an 'Institution' dropdown menu.

# Create a Set – Repository Search

3. Set Details screen opens
  - a) Set name: [name the set]
  - b) Description: [optional, but informational]
  - c) Private: [No, unless private]
  - d) Status: [Active]
  - e) Click **Save**

Set Details

General Information

Set name \* All GEN's Physical Titles

Description Geneseo's physical repository

Note

Set content type Physical titles

Private  Yes  No

Set type Logical

Status  Active  Inactive

Creation date 01/22/2020 20:21:58 EST

Created by Ex Libris

Updated by Ex Libris

Content Origin Institution only

Set ID -

Save

# SUPPORTING DOCUMENTATION

SUNY Library Shared Services  
Maggie McGee



# Supporting Documentation

- SLSS presentations
  - [Sets and Jobs](#)
- Ex Libris Documentation
  - [Working with Indication Rules](#)
  - [Alma Indication Rules Examples](#)
  - [Filtering Sets](#)
  - [Presentations and Documents](#)
  - [Normalization Syntax Rules and Logic](#)
  - [Normalization Rules video](#)
- JBOSS: <https://docs.jboss.org/drools/release/5.2.0.Final/drools-expert-docs/html/ch05.html>