

ADVANCED INDICATION RULES

SUNY Library Shared Services
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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 Contain

- Indication rules use flexible drools logic like normalization rules
 - Flexible drools language is based on JBOSS Rules engine
- Indication rules contain:
 1. **Rule**
rule "338 |a videodisc set indication to true"
when
 2. **Condition**
exists "338.a.videodisc"
then
 3. **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
```

Indication Rules - Conditions

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

1. TRUE – **Do not use 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 and codes.

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".

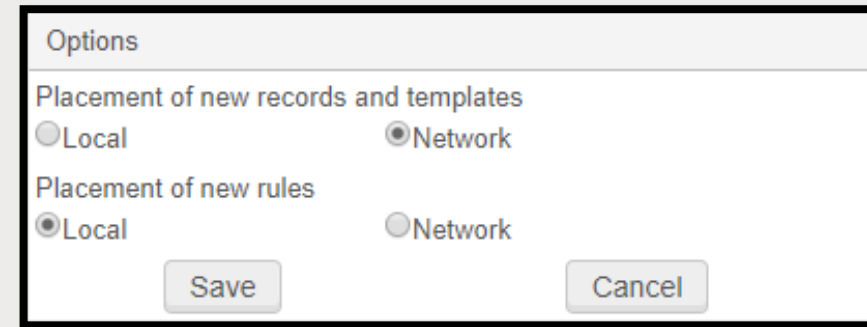
Right Screenshot: Shows a rule configuration for "rule '040 lb eng does not exist'". The rule is defined as:
when not exists "040.b.eng"
then set indication."true"
end
An "Information" dialog box is open, displaying the result "false".

STEPS TO CREATE AN INDICATION RULES

Indication Rule Steps

Placement of new rule must be Local

- Go to ***File>Options***
- Click on the ***Local*** radio button
- Click ***Save***



1. Create the indication rule
 - a) From the MD Editor
 - b) Duplicate and edit an existing indication rule
2. Test the indication rule
 - a) Open a bib record in the MD Editor to test and edit the indication rule
3. Run the indication rule against a set
 - a) Create a set or use an existing set
 - b) Filter the set using an indication rule

REVIEW OF BASIC INDICATION RULE SYNTAX

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
 - c) Is used to search more than one MARC field, 59*, 3**
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 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

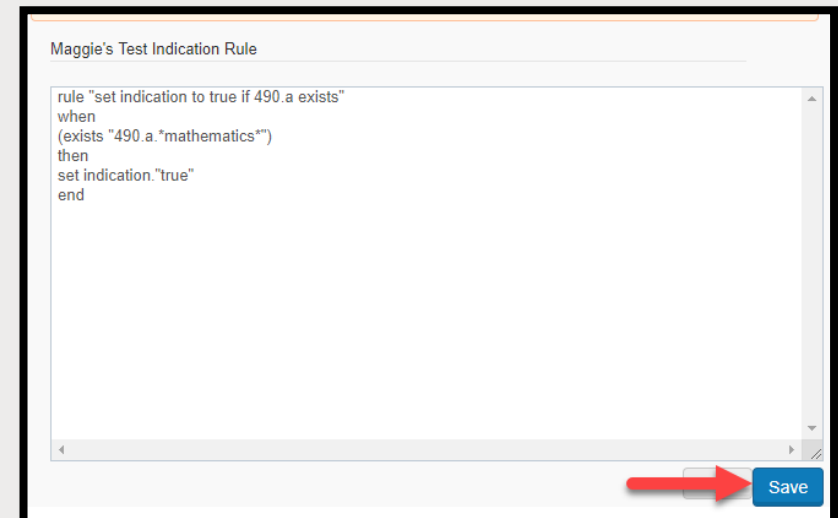
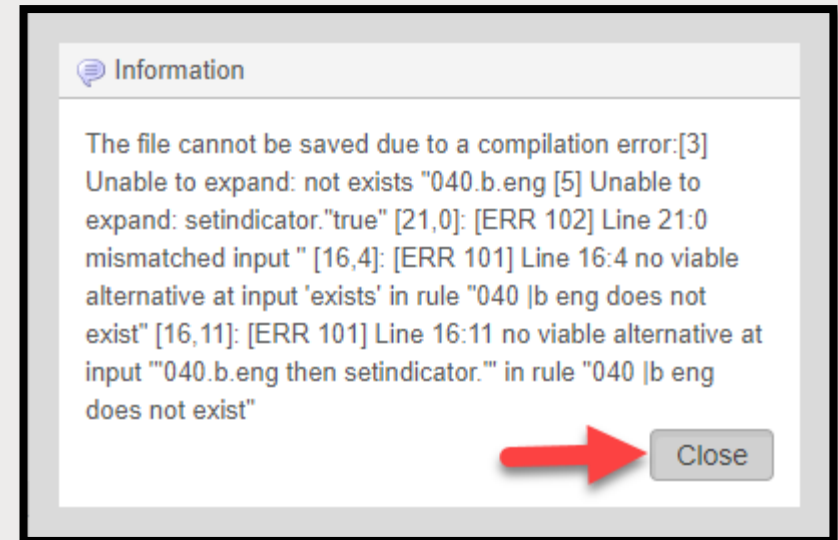
The screenshot shows a MARC record editor interface. At the top, a warning banner reads: "You have 2 warning(s) in your record - Draft saved at 10:31:42 PM." Below this, the record details are displayed, including the title "Working on - Kābē / Shōchiku e (991058876116604801)", the creator "NUTH@01SUNY_GEN", and the modification date "10/15/2019 10:31:47 EDT". The LDR field is highlighted, and its subfields are visible: Logical record length (06048), Bibliographic level (m - Mono), Indicator count (2), Encoding level (7 - Minimum), Length of the length-of-field portion (4 - Number), and Undefined Entry map character position (0 - Undefined). The "Encoding level(17)" field is highlighted with a red box. To the right, a rule editor window is open, showing a rule named "GEN - 007 contains {4,1} v for DVDs". The rule text is: "rule 'fixed field LDR contains 17,1|7 minimum level' when existsControl 'LDR:{17,1}.7' then set indication.'true' end".

Review of Basics Indication Rules Syntax

1. Basic indication rules can use a condition that contains a single MARC field
 - a) exists “490”
2. Basic indication rules can use a condition that contains a single MARC field and subfield
 - a) not exists “490.a”
3. Basic indication rule case use a condition that contains a single MARC field, subfield, and value to be found with in the subfield
 - a) exists “490.a.In a nutshell”
 - b) not exists “490.a.*nutshell”
4. Basic indication rules can identify the control fields (00Xs)
 - a) existsControl “007”
5. Basic indication rules can identify the control fields (00Xs), position and length
 - a) not existsControl “007.{4,1}”
6. Basic indication rules can identify the control fields (00Xs), position and length, and value
 - a) existsControl “007.{4,1}.v”

Indication Rule Syntax Errors

- Syntax error will prevent a rule from saving in the MD Editor
- If an information box appears saying the file cannot be saved:
 1. Click **Close**
 2. Edit the indication rule syntax
 3. Click **Save**



ADVANCED INDICATION RULE SYNTAX

Advanced Indication Rule Syntax

- Use the basic indication rule syntax structure to create more complete indication rules
- Advanced indication rules can be written to combine any of the following:
 - MARC field
 - MARC field_indicator
 - MARC fields_subfields
 - MARC fields_subfields_value
 - MARC fields and control fields
 - Control field
 - Control field_position_length
 - Control field_position_length_value
 - Control field_position and any MARC field_subfield_value combination
 - Control field_position_length_value and any MARC field_subfield_value combination

Advanced Indication Rule Syntax

- Use parentheses between conditions

```
rule "retrieve all records with 245 and 246"  
when  
(exists "245") OR (not exists "246")  
then  
set indication."true"  
end
```

- Use double parenthesis to enclose the conditions

```
rule "retrieve all records with 245 and 246"  
when  
((exists "245") AND (exists "246"))  
then  
set indication."true"  
end
```

- Use double parenthesis to enclose different conditions

```
rule "retrieve all records with 245 and 246"  
when  
((exists "245") AND (exists "776")) OR ((exists "245") AND (exists "490"))  
then  
set indication."true"  
end
```


Advanced Indication Rule Syntax

- Use Boolean terms to connect conditions

- AND
- OR

```
rule "retrieve all records with 245 and 246"  
when  
(exists "245") AND (not exists "246")  
then  
set indication."true"  
end
```

```
rule "retrieve all records with 245 and 246"  
when  
(exists "245") OR (not exists "246")  
then  
set indication."true"  
end
```

- Conditions can be different

```
rule "retrieve all records with 245 and 246"  
when  
(exists "245") AND (not exists "246")  
then  
set indication."true"  
end
```

```
rule "identify records with 490 and 008 dated 2019"  
when  
((exists "490") AND (existsControl "008.{7,4}.2019"))  
then  
set indication."true"  
end
```

Examples of Advanced Indication Rule

```
rule "identify records with 490 and 008  
dated 2019"
```

```
when
```

```
((exists "490") AND (existsControl  
"008.{7,4}.2019"))
```

```
then
```

```
set indication."true"
```

```
end
```

```
rule "identify records with 490 and 300|c  
missing a period"
```

```
when
```

```
((exists "490") AND (not exists  
"300.c.*\\\\\\\\"))
```

```
then
```

```
set indication."true"
```

```
end
```

Examples of Advanced Indication Rule

```
rule "identify records without 650 LC SH or  
336|337|338"
```

```
when
```

```
((not exists "650.{*,0}") AND ((not exists  
"336") AND (not exists "337") AND (not  
exists "338"))))
```

```
then
```

```
set indication."true"
```

```
end
```

```
rule "identify records not exist 040|b|rda  
exist 336|337|338"
```

```
when
```

```
((not exists "040.b.rda") AND ((exists  
"336") AND (exists "337") AND (exists  
"338"))))
```

```
then
```

```
set indication."true"
```

```
end
```

Examples of Advanced Indication Rule

```
rule "identify record without control 008  
pos 35,3 eng where 336 | 337 | 338 or  
040 | e | rda exist "
```

```
when
```

```
(not existsControl "008.{35,3}.eng") AND  
(((exists "336") AND (exists "337") AND  
(exists "338")) OR (exists "040.e.rda"))
```

```
then
```

```
set indication."true"
```

```
end
```

APPLYING AN INDICATION RULE TO A SET

Apply the Indication Rule to a Set

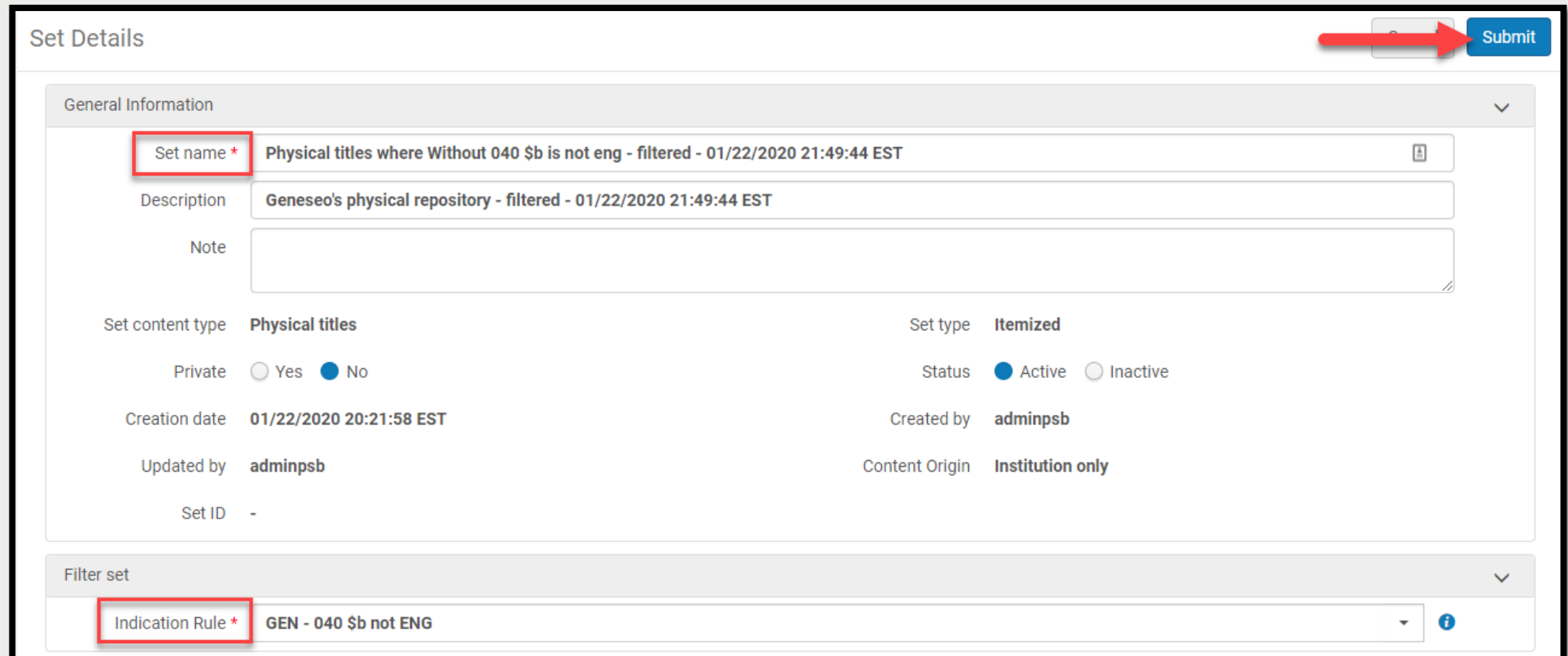
1. Go to *Admin>Manage Jobs and Sets>Manage Sets*
2. Click *Filter* from the ellipses of the desired set

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

3. 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 is divided into two main sections: 'General Information' and 'Filter set'. The 'General Information' section includes fields for 'Set name', 'Description', and 'Note', as well as metadata like 'Set content type', 'Set type', 'Private', 'Creation date', 'Updated by', and 'Set ID'. The 'Filter set' section includes the 'Indication Rule' field.

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

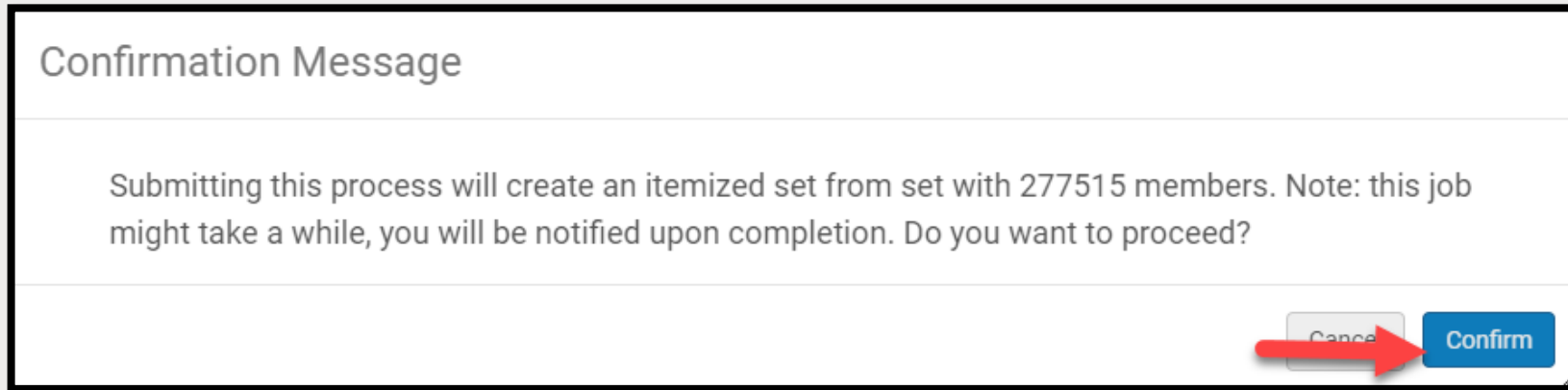
Set ID -

Filter set

Indication Rule * GEN - 040 \$b not ENG

Apply the Indication Rule to a Set

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



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

Apply the Indication Rule to a Set

7. 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
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	Filter set
							Delete

SUPPORTING DOCUMENTATION



The State University
of New York

Supporting Documentation

- SLSS presentations
 - [Sets and Jobs](#)
 - [Understanding the Basics of Indication Rules](#)
- Ex Libris Documentation
 - [Working with Indication Rules](#)
 - [Alma Indication Rules Examples](#)
 - [Filtering Sets](#)
 - [Presentations and Documents](#)
 - [Normalization Syntax Rules and Logic](#)
 - [Normalization Rules video](#)