Marking Bound-with Bibliographic Records in the NZ

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This document outlines the "central update" method that can be used by the Alliance for identifying and marking bibliographic records in bound-with relationships. In this method of marking bound-withs, markers are initially added by the Network Zone Manager in batch processes. Local institutions add the markers as bound-with relationships are created in their Alma IZs. Removal of markers is done on a regularly-scheduled basis by the Network Zone Manager, based on record lists sent in by institutions.

Context and merge rule changes:

In order to make bound-with relationships between host and constituent bibliographic records visible in the Network Zone, the MARC 979 tag has been defined as a bound-with record marker. The marker will enable the NZ Manager to filter bound-with records without inventory out of sets earmarked for deletion during cleanup and maintenance processes in the NZ.

The 979 field is inherently a local field in Alma. In this specific application, the field is added as a "non-localized" local field. That is, it is added as a normal MARC field and appears without the $9LOCAL value or the "house" icon next to the field in Alma. This makes the marker visible to the NZ and all IZs. As such, staff at member institutions will see markers in their bound-with titles as well as the bound-with titles of other Alliance institutions.

In order to protect the marker from daily update loads in the NZ, the "OCA Bib Overlay (keep 035s)" merge rule has been updated. The line "replace MARC."9"XX" has been replaced with two lines:

> remove MARC."9"XX excluding "979"
> add MARC."9"XX

The first line removes all 9XX fields except the 979 in the existing NZ record. The second line then adds the incoming record's 9XX fields to the existing record.

Identifying existing bound-withs in your IZ

Based on [full instructions from Bob Thomas](#) in 2015, take the following steps to identify your institution's bound-with records:

Step 1: Identify potential bound-with host records:

- ■ Option 1: Create an All Titles set where All titles (Other System Number contains keywords 99*) and save the resulting set. This will identify records which **might** have an

MMS ID in the 774$w (bound-with linking field), but it will also include records that are not bound-with host records. You will need to complete step 3 below.

- Option 2: If you have used a standard title/text in your host bibliographic records create an All Titles set where All titles (Keywords contains phrase ["your standard text"]). As long as this text is specific, you should only have bound-with host records in your set, and you may skip step 3 below.
- Option 3: If you have set up an Alma indication rule to identify records with 774$w subfields, you can create your bound-with host set by running this indication rule against your entire Alma IZ repository. This will return a set that may contain non-boundwith records with 774$w data. To remove these, export your set to Excel and remove the records with holdings attached. The remaining records should all be bound-with host records. You can skip step 3 below.

Step 2: Export the host records:

- Run the "Export Bibliographic Records" job against the set you created in step 1, using **Physical format = Binary** and **Output format = MARC21 Bibliographic**.
- When the job has completed, go to Monitor Jobs -> History tab, and on the line for your export job, select Actions -> Report.
- The report will have a hyperlink with a filename that looks like "BIBLIOGRAPHIC_8987926080001453_1.mrc". Click on the file name link.
- On the next screen select Actions -> Download and save the file of bib records on your computer.

Step 3: Isolate records with bound-with links:

- 3a: Harvest the 774$w fields:
    - Open MarcEdit and select Tools (along the top row) -> Select MARC Records -> Extract Selected Records.
    - Change **Display Field** to **774$w**, click on the folder for the **Source MARC File** and select the file downloaded in step 2, and click the **Import File** button.
- 3b: Isolate the bound-with data:
    - Next, click on the **Display Field (774$w)** column heading to sort by that column.
    - Check the **Retain Checked Items** box, click the top line with a value in 774$w (not the ones that start with (CKB)), hold down CTRL+Shift key and click the last line with a value in **774$w**.
    - If clicking on the line doesn't check the appropriate boxes, click on **one** of the boxes (while the lines are still highlighted), and **all** the lines should be checked.
    - Check to make sure **all** lines with a value in **774$w** (other than CKB) are now checked.
- 3c: Export the Bound-with records in .mrc format:
    - Click the **Export Selected** button and tell MarcEdit where to put the file of these bound-with records.

- ○ Go to MARC Tools (the big icon – not the top row) and choose **MarcMaker**.
- ○ Select the file you just created as the input file (it will have a **.mrk** extension), select the output file and allow MarcEdit to fill in the output file name, and click on the **Execute** button. This converts the records back into MARC binary format.

Step 4: Export 774$w of bound-with records:

- In MarcEdit, select Tools (on the top row) -> Export -> Export Tab Delimited Records.
  - ○ For the top file name box, click on the folder and select the .mrc file you created in step 2 (or 3, if you had to use that step).
  - ○ Then click on the folder next to the second file name box and provide a file name for the .txt file that will be created as part of this process.
  - ○ Choose **Tab** for the **Select Field Delimiter** and **semicolon** for the **In field delimiter** fields and click on the **Next** button.
  - ○ Enter **774** (without quotes) in the **Field** box and **w** in the **Subfield** box, then click the **Add Field** link.
  - ○ (Optional): If you want to use this set to add local markers to your host bibs as well as the constituent bibs, enter **001** (without quotes) in the **Field** box, leave the **Position** box blank, then click the **Add Field** link.
  - ○ Click the **Export** button.

Step 5 (Excel version): Formatting the MMS IDs and removing duplicates for Alma set creation:

- Open Excel and go to File -> Open. Browse to the .txt file from the previous step. Click **Open.** This opens the Text Import Wizard.
- In Step 1 of the wizard, choose the **delimited** option. Click **Next**.
- In Step 2 of the wizard, check the boxes for **Tab** and **Semicolon**. Enter " (**double quote**) in the **Text qualifier** field. Click **Next**.
- In Step 3 of the Text Import Wizard, change the **Column data format** selection from General to **Text** (this prevents Excel from displaying pure number values like MMS IDs in scientific notation) for all columns. Click **Finish**.
- The spreadsheet should contain two columns - one with the 774$w numbers, and one with the 001 data (if you chose to export those fields in the last step). Your next task is to get all of the numbers in one column. To start:
  - ○ Select all of the values in the "001" column. Copy/cut these cells with **CTRL + X**. Scroll to the bottom of the sheet and paste them onto the end of the first column with **CTRL + V**. Delete the "001" column header at the top of the sheet.
- Now you'll need to split up all of the 774$w data into separate cells. This is a LOT easier if you can find the longest entry in column A and move it to the top of your spreadsheet. To find the longest entry and get it to the top of the sheet:
  - ○ Select **Column B** and choose the **Number** format for the column. In the first cell, enter "Length" as the column name. In the second cell of the column, enter the formula: **=LEN(A2)**. The cell should give a numeric result. Now select that cell

again and double-click the **fill handle** that appears in its bottom right corner. This will copy the formula to all of the cells in the column.

- ○ Select all of the data in the sheet (**CTRL + A**). Click **Sort and Filter > Custom sort**. Check the **My data has headers** checkbox. Choose **Length** as your "Sort by" column. Select **Largest to smallest** as your "Order". **Save** the spreadsheet.
- To split the cells, Select **Column A** and then click **Data > Text to columns**.
  - ○ On the first page, select **Delimited**. On the next page, select **Semicolon** as the delimiter. On the final page, make sure that all columns are formatted as **Text**. (This may take a while if you have many entries on a single line - but since your longest line is at the top, you won't have to scroll down to find it!) Click **Finish.**
- For really long rows of MMS IDs: select all of the cells in the row(s) and copy with **CTRL + C**. Then scroll to the bottom of the sheet and select the first empty cell in Column A. **Right click** and in the paste options that appear, select **Transpose**. This will paste the row(s) of MMS IDs onto the end of the column. Delete the copied row from the top of your spreadsheet, and repeat for any other long rows.
- For shorter rows of MMS IDs, you can use cut (**CTRL + X**) and paste (**CTRL + V**) to "move" columns of MMS IDs from their current columns to the end of column A.
- Once all of the IDs are in Column A, replace the column heading "774$w" with "MMS ID" (without the quotes).
- Select the entire spreadsheet (**CTRL+A**) and use Data -> Sort to sort the MMS IDs.
- Use Data -> Remove Duplicates to retain only unique MMS IDs.
- **Save** the file in Excel 97-2003 (.xls) format.

Step 5 (OpenRefine version): Formatting the MMS IDs and removing duplicates for Alma set creation:

- Start OpenRefine and click **Create Project**. Click **Choose Files** and browse to the .txt file from the previous step. Click **Open.** Click **Next.**
- On the "Configure Parsing Options" page, you should have **Tabs** selected as the Column separators, **"Parse next 1 line as column headers"** checked, and the option for "**Quotation marks are used…**" checked. If desired, edit the project name at the top of the page and click **Create project**.
- Your list of MMS IDs will appear, with all of the 774$w and 001 values from each record on a single line. We want to get all of those values into one column. To do this:
  - ○ Click the **down arrow** next to the "774$w" column heading. Select **Edit Cells > Split multi-valued cells**.
  - ○ In the **Separator** box, enter a semicolon. Click **OK**. Your spreadsheet will now display one column of MMS IDs if you only exported 774$w data. It will show two columns of IDs if you also exported 001 data.

- ○ Fill the empty cells in the 001 column by clicking the **down arrow** next to the "001" column heading. Select **Edit cells > Transform** option. In the **Expression** box, paste the following: if(value==null,"Empty",value) . Click **OK**.
- ○ To get the 001s added to the first column, click the **down arrow** next to the "001" column heading. Select **Edit column > Add column based on this column** option.
- ○ Name the new column "MMS ID". In the **Expression** box, paste the following: cells["774$w"].value + ";" + cells["001"].value . Click **OK**.
- ○ Click the **down arrow** next to the "MMS ID" column heading. Select **Edit Cells > Split multi-valued cells**. In the **Separator** box, enter a semicolon. Click **OK**. THe MMS ID column now contains all of the MMS IDs in separate rows.
- Using the down arrows, **Edit column > Remove this column** for both the "774$w" and "001" columns. This leaves just your "MMS ID" column.
- Click the **down arrow** next to the "MMS ID" column heading. Select **Sort**. Select the **text** and **a-z** options. Click **OK.** Now click **Sort** in the header bar, and select **Reorder rows permanently**.
- Click the **down arrow** next to the "MMS ID" column heading. Select **Edit cells > Blank down**. This removes duplicate values from the column.
- To remove the now-empty rows, click the **down arrow** next to the "MMS ID" column heading. Select **Facet > Customized facets > Facet by blank**. In the left-hand pane, click on **True**. Click the **down arrow** next to the "All" heading and select **Edit rows > Remove all matching rows.** In the facet pane, click **Remove All** to remove the facet.
- Click the **Last >>** button in the upper right to go to the last page of results. Scroll to the bottom and click the **Star** for the cell that contains the word "Empty". Click the **down arrow** next to the "All" heading and select **Facet > Facet by star.** Click **True** in the facet pane, then click the **down arrow** next to the "All" heading and select **Edit rows > Remove all matching rows.** In the facet pane, click **Remove All** to remove the facet.
- Finally, click **Export** in the upper right hand corner. Select the **Excel (.xls)** option. Specify a file name and location for the MMS ID list, and then click **Save**.

Step 6: Create an Alma set of your bound-with records:
- In Alma, go to Manage Sets and click on **Add Set** and click the **Itemized** option. Name the set and set the **content type = All Titles**.
- Browse for your .xls file of MMS IDs created in Step 5 and click the **Save** button.
- A set creation job will process the file and add the records to your set. You'll be notified by email when the job finishes.

Step 7: Export and drop off your final list of bound-with records:
- Run the "Export Bibliographic Records" job against the set you created in step 7, using **Physical format = Binary** and **Output format = MARC21 Bibliographic**.

- When the job has completed, go to Monitor Jobs -> History tab, and on the line for your export job, select Actions -> Report.
- The report will have a hyperlink with a file name that looks like "BIBLIOGRAPHIC_8987926080001453_1.mrc". Click on the file name link.
- On the next screen select Actions -> Download and save the file of bib records on your computer.
- Rename the file with the following naming convention: INST_YYYYMMDD_boundwiths.mrc, where INST is your institution's Alma/Primo symbol.
- Drop the file off in [this folder on Google Drive](#). (If you have access problems using the embedded link, try copying and pasting the link address to your browser's URL bar.) The NZ Manager will pick up the files and run a batch process in the NZ to add the bound-with marker in the MARC 979 field.

Adding the marker to new bound-with bibs:

In order to protect new bound-with records between "refresh" processes, records involved in any new bound-with relationships in Alma will have to be marked. As of this writing (4/20/18), a bug in Alma prevents IZ-level jobs using a norm rule to add the marker to NZ records. This problem has been reported to Ex Libris in Alliance SalesForce case number 00543362. Due to this problem, markers added from an Alma IZ must be added record-by-record in the Metadata Editor. In cases where this is not feasible, batches of records may be sent to the Network Zone Manager for marking.

Adding the marker to a single record

To add the marker to bound-with records one at a time:

1. Open the desired record in the Metadata Editor, and check for an existing 979 "Boundwith record" marker.
2. If no marker is present, use File -> Add Field (**F8**) to add a 979 field.
   a. Code **$a** as "**NZ Boundwith record.**".
      Example: 979 _ _ $$a NZ Boundwith record.
   b. Note that the marker is *not* added as an Alma "local" field, which would prevent it from being seen in the NZ. Instead, add the field as a **standard** MARC field. This makes it visible to other institutions and to the Network Zone.
3. If a 979 bound-with marker is already present, no action is needed.
4. Check to ensure that the 979 shows as a standard field without an icon next to it in the metadata editor.
5. Save and release the record.

Adding the marker to a batch of records

If adding the markers using the Metadata Editor is not feasible for your local workflow, you have the option of creating an itemized set of your boundwith records, and then following Step 7 of the process above to send them to the Network Zone Manager, who will mark the records in the NZ.

Removing the bound-with marker:

The other half of keeping the markers accurate is removing them when institutions no longer have bound-with inventory related to the record in question. This removal will be done by the NZ Manager via central batch processing on a regular basis.

Regular "refresh" of bound-with markers

This process requires institutions to create an Alma set of their bound-with records and send them to the Network Zone Manager in .mrc (MARC binary) format.

1. Using the procedure outlined above, create an Alma set of your bound-with bibliographic records and drop off the records in this Google Drive folder.
   a. Be sure to use the file naming convention "INST_YYYYMMDD_boundwiths.mrc", where INST is your institution's Alma/Primo symbol.
2. The NZ Manager will remove all existing boundwith markers from NZ bibs.
3. The NZ Manager will harvest the NZ MMS IDs from the submitted files and add the bound-with markers to the appropriate NZ records in a batch process.
   a. Note that any IZ-only bibs included in your institution's file will not be marked, since they are not linked to the NZ and therefore do not need protection.