**Same Title Items in the Same Location with Different Call Numbers**

***Overview***: The goal in this cleanup task is to find and fix cases where multiple item records, attached to the same bibliographic record, have the same location codes but different call numbers.

***Importance***: When multiple Millennium item records, attached to the same bibliographic record, have the same location codes but different call numbers, Alma will retain one call number and discard the rest (see *Background* explanation below).

***\*\*\*PLEASE SEE THE 9/3/2013 UPDATE AT THE BOTTOM OF THIS DOCUMENT\*\*\****

***Background****:* Some of the information below is extracted from the *Millennium (III) To Alma Migration Guide.*

Call numbers in Alma are stored at the holding record level, in the 852 field. Ex Libris will copy the call number in the exported Millennium item record data into the Alma holding record. Since Millennium strips out all subfielding when exporting call numbers, Ex Libris will place each call number in subfield $h of the Alma holding record 852 field. Ex Libris has stated that call number subfielding in Alma does not affect functionality.

When Millennium exports call numbers as part of item record data, Millennium strips off all MARC field tags (e.g., 086, 090 or 099) and all subfield coding. Without the call number field tag, Alma cannot tell what type each call number is, e.g., LC versus SUDOC. Therefore, as each library must designate a single call number type for each location code on the Alma Location tab of the Millennium III Migration Form. The following table lists some common call number types that can be entered in the Cat Number Type column for each III location code in the migration form:

 Call Number Type Code

 050 LC 0

 086 SUDOC 3

 090 Local LC 0

 092 Local Dewey 1

 096 NLM 2

 099 Local Free Text 8

If there are multiple item records with the same Millennium location code attached to a single Millennium bibliographic record, the call number for the new Alma holding record is copied from the *first* item found (with a non-empty call number field) with that location code.

Taking the call number from the first item record found for the group may cause some item call number information to be lost if the call numbers differ from each other in the same location.

For example, if there are four items with the following call numbers, three in main and one in bio:

 item a main: PN 567 .M456

 item b main: PN 567 .M457

 item c main: PN 567 .M457

 item d bio: PN 567 .M457

The holding record for location main uses the call number from the first item record for the location main, which is PN567 .M456. The call numbers for item b and c are lost, since b and c inherit the call

number of the new holding record for main.

In the above example, a second holding record for item d is created for location bio using the call number PN 567 .M457.

*Note: When an item and a checkin record with the same location are attached to the same bibliographic record, the call number from the item is given preference.*

**Step 1 – Set the Millennium “Look up call numbers” option appropriately**

Millennium’s “Look up call numbers” option determines what call number is included in item record data exported from Millennium. This option must be set the same way it will be set for your test load and cutover load data extractions *before* creating any review files for this cleanup task.

The call numbers selected to populate Alma’s holdings records will be taken from the exported item record data files. All libraries must determine which of the two models below is most appropriate for them and set systems options as indicated.

***Model #1***: This is the model that most Millennium libraries use. In this model, libraries use the 'c' tagged (Millennium field group tag 'c') call number field from the bib record for display to patrons and printing spine labels if there is no call number field in the item record. If a call number field is present in the item record, it is used instead of the call number in the bib record.

For libraries using this model, you must make sure the 'Look up call numbers' option in Millennium preferences is selected before creating the review files you will use in this cleanup task. With this option selected, when you export the item record call number field, Millennium will export the call number from the item record if a call number field is present in the item record. If the item record does not contain a call number field, Millennium will copy the call number from the 'c' tagged call number field in the bib record and export it as if it were in the item record.



***Model #2***: For libraries that always record a call number in every item record, they must make sure the 'Look up call numbers' option is unchecked in Millennium preferences.

**Step 2 – Create Millennium review files of item records**

Each review file must contain all item records attached to a single bib record. Since few, if any, Millennium systems are set up to create a review file with all item records in the system, an approach must be selected that allows that data to be gathered into multiple review files.

***Approach #1***: One method of creating the review files is gather all item records with the same item record location code, or groups of codes, into a single review file. For example, I gather together all item records in our many special collections locations by creating a review file of all items where the location code started with “sp” (the first two characters of all our special collections location codes).

***Approach #2***: Create a review file of subset of your Millennium bibliographic records (based on a range of “.b” record numbers). Then, using that review file of bibliographic records, create a second review file of all item records attached to those bibliographic records. Follow the steps outlined below, then create a new review file containing the next subset of bibliographic records, using the last “.b” number in the previous review file as the first “.b” number in the next review file. Continue until you’ve gone through all bibliographic records and attached item records in your catalog. If using this approach, when creating the review files of item records, item records with certain location codes can be excluded (such as item records for online resources).

**Step 3 – Export Item Record Data**

 Using a review file of item records created in step 2, use the Export Records tool in Create Lists to export the following fields into a plain text (.txt) file. Use a standard field delimiter (like a tab) and text qualifier <none>.

 Record Type Field Field Number

 BIBLIOGRAPHIC RECORD # 81

 ITEM RECORD # 81

 ITEM LOCATION 79

 ITEM CALL # c

**Step 4 – Import the Exported Item Record Data into Excel and Cleanup**

Open the exported file of item record data into Excel. All explanations below assume that the Excel spreadsheet contains the following columns:

 Column A Bib Record #

 Column B Item Record #

 Column C Location code

 Column D Item Call #

Millennium will export some item records with multiple bib record numbers (for boundwiths). In order to easily work with the data, each row in the spreadsheet must contain only one bib record number, and it must be in column A. Do the following in order:

 1. Sort the spreadsheet on column B which will result in any row with a “.b” record number in the column B (the item record column) will sort to the top of column B;

 2. Highlight the “.b” record numbers in column B;

 3. Right click, and select *Delete*;

 4. In the resulting Delete dialog box, select “Shift cells left”

 5. Repeat steps 1-4 until Column B no longer contains any “.b” record numbers.

*Note: You can check to make sure all rows have data in only columns A-D by turning on Filters on the Excel Data tab. Then, open the dropdown filter list in row 1 of column E. The only values in column E should be “Blanks”.*

**Step 5 – Find cases of multiple item records attached to the same bib record with the same location code but different call numbers**

Sort the spreadsheet by 1) Column A (bib record #), 2) Column C (location), and 3) Column D (call number).

Enter the following formulas in the cells indicated:

 Row 2, Column E =IF(OR(F2="X",G2="X"),"X","")

 Row 2, Column F =IF(AND(A2=A1,C2=C1,D2<>D1),"X","")

 Row 2, Column G =IF(AND(A2=A3,C2=C3,D2<>D3),"X","")

This formula does the following: Put an “X” in column E of every row where the “.b” record number and the location code are the same as the row before or after, and the call number is different than the rows before or after – otherwise leave column E blank.

Once you have the formula entered in column E, populate column E with the formula (highlight row 2 column E and double click the black square dot at the bottom right corner of the highlighted cell). Then do the same for columns F and G. Excel will automatically appropriately adjust the formula cell addresses for each row.

Turn on Filters on the Data tab. Open the Filter dropdown list in row 1 column E, uncheck *Select All* and check only *“X”*. Only item records with problem call numbers should now be visible, for example:



Highlight the cells you want to keep (the 15 cells in rows 330-332, columns A-D in the above example), copy and paste them into a separate Excel workbook where you can keep all the item record call numbers that need modification.

**Step 6 – Repeat steps 2-5 above until you have examine all item records in your catalog**

**Step 7 – Modify the call numbers found in steps 2-6 above**

Split the call numbers in the problem cases found so that the base call number is in a Millennium “c” call number field and the varying volume information in in a Millennium “v” volume information field. Using the above example to illustrate, it would be modified to the following:

 Bib Record Item Record Location “c” Call # “v” Volume

 b10083364 i10139382 mscn M2 .D391 v.2

 b10083364 i10139400 mscn M2 .D391 v.24-25

 b10083364 i10139394 mscn M2 .D391 v.7

These call numbers will not migrate correctly to the Alma holding record.

**Limitations & Unresolved Issues**

1. Some problem call numbers cannot be easily ‘fixed’ using the above procedure. In this cases, each item record has a completely different call number (for items in the same location attached to the same bib record). In these cases, we will likely need to manipulate the item record exported data (in the cutover load for cohort 1) so that the call numbers are migrated either to the Alma alternate call number field, or the Alma accession number field. The Shared ILS Catalog Working Group will be conducting tests following delivery of the cohort 1 Alma production environments to determine which Alma call number field works best for both staff and patrons.

2. This process is optimized to find problem call numbers related to monographic series/sets. It is not optimized for serials, where call number migration also involved data from the Millennium checkin records. The Shared ILS Catalog Working Group will be conducting tests related to serial call number migration following delivery of the cohort 1 Alma production environments.

3. It is not clear how effective this process is for boundwiths, i.e., item records which are linked to multiple bib records in Alma.

***Update of 9/3/2013***: Ex Libris has modified the data migration form completed by libraries in cohort 2 and later cohorts so that a library can now have multiple holding records created for items in the same location with different call numbers. There new option is on the “Questionnaire” tab and instructs the library to “Indicate which 852 subfields to use to determine unique holding records (Instruction: To group all items on a single bib by location only, use ‘bc’ here. If you have many items on the same bib in the same location but different call numbers WITHIN that location, then choose from additional subfields hiijkmp. Default = bc (library and location only, not call number).”

The SILS Catalog Working Group requested additional guidance/details from Ex Libris and here was their response (Case #00021233; response provided on 8/30/2013):

SILS Cat WG Questions:

Question 1: Could you please formally confirm that Alliance libraries no longer need to modify their existing Millennium call numbers so that all items in a given location, attached to the same bib record, have the same call number, i.e., data migration will create separate holding records for each combination of location+call number.

Question 2: In the instructions for this question, it states “If you have many items on the same bib in the same location but different call numbers WITHIN that location, then choose from additional subfields hiijkmp.” For those Alliance libraries (migrating from Millennium) who will export all call numbers as part of the item record csv file (i.e., call numbers will not be extracted from the bib records), the entire call number was placed in the Alma 852 $h field and was not split between multiple fields. Therefore, can you confirm that the correct response for this question is “bch” if the library has many items on the same bib in the same location but different call numbers WITHIN that location? When might a library want to include subfields other than "bch" in their response?

Ex Libris response:

Since Question 1 and Question 2 are really basically the same question, we will answer both in one go.

Essentially, yes is the answer to #1, but can only be achieved by choosing bch as you describe in #2. However, we don't think that can be said as a blanket statement for all institutions and all data and all scenarios safely. We have encountered many variations; here are a few examples:

1. Item with call number and Marc holdings with call number - both in the same Bib, Library and Location and an answer of bch in the migration form:

a. If the item call number is equal to the Marc holding call number (852 |h) - it will associate with it.

b. If the item call number is not equal to the Marc holding call number (852 |h) - a new holding will be generated with the item's call number as the new holding's call number.

2. Item with call number and no Marc holdings and an answer of bch in the migration form:

a. a new holding will be generated with the item's call number as the new holding's call number. Any subsequent item in the same Bib-Lib-Loc-Call number get applied to the same generated holding. Any difference in Call number string will result in different holdings generated for each.

So, if in all cases it is correct to say at the Alliance that bch is the right way to go and that any difference in call number either between item and Marc holding or between items and other items should have their own generated holdings, then, yes. We have seen many exceptions to that at some sites, which is why we are wary of simply answering your question with a "yes" it is no longer needed to cleanup your call numbers.

As for why one might want to include more call number fields in the match criteria - we have sites like that, too - where even subfield h call number info is not enough, and want differentiated holdings if any of the other 852 subfields are different among items - or between items and a real marc holding.

So, this is why the parameter now exists. It is not plug and play across all sites to say that one or the other is best. It depends on how the data is managed today - and whether a looser match based on bc alone is best (quite often it is) or whether a more specific match is better (which can result in lots of extraneous holdings if the data is not clean).

Hope that answers your question. If not, let us know and we'll try to get you what you need to know.

Leah & David

Summary – when a call number for multiple items in the same location is legitimately different, for example a U.S. Federal Document serial where the SuDoc stem has changed over the life of the continuing resource, we can now leave those as is and have them migrate correctly. However, any minor variances in call numbers should still be cleaned up to make your new Alma environment work as well as possible.

*Created 3/6/2013 (Updated 9/3/2013) by Bob Thomas*