“Dual Linkage”
Iowa’s Use of the ITM Link

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The Problem

Each physical volume in our collection has only one barcode in it, therefore each piece has only one item directly connected to it. However, more than one bibliographic record may exist for one physical piece. This results in the item being linked to only one of these records. The other records lack circulation information in their display. This situation can occur when a monographic series is classified together and records are made for the individual titles as well as the series. It can also occur when multiple monographic titles are bound or filmed together (“bound withs”).

We call the record with the item record directly connected the “parent”. We call the record the has the LKR field the “child”.

How to Use the LKR Field for ITM Links

Aleph uses the LKR field to link records together. Some of these are system generated, such as the LKR fields in the Holdings and ADM records (linking to the Bibliographic record). Other LKR fields are added manually. The LKR field goes into only one of the linked records. (The system creates a corresponding link in the other record in the Linker table, Z103.)

At Iowa, the only type of LKR field we are manually adding is the ITM link (to link an Item to more than one bibliographic record). We have edited the LKR form to be specific to the ITM link.

- We have edited the text to give basic instructions.
  - Specifying ITM (in all caps) as the type of link.
  - Specifying you need an ADM system number.
  - Specifying the library (in our case, always IOW50).
- Changing the descriptions of subfield y, v, i, p to match the item form.
- We have removed subfields that are not used in this type of link (subfields k, m, n and r).
We rearranged the subfields $p$ and $i$ so that they would be in the standard order for sorting (and because you must always have data in subfield $i$ before you can have data in subfield $p$ to be consistent with MARC).

**Basic Instructions**

Fill out the LKR form with ITM, the ADM system number and the ADM library.

Note that you CANNOT copy the ADM number from anywhere. You must either write it down or remember it. This makes the process much more awkward than it should be. You do not seem to need the leading zeros, but we have been adding them just to be safe. If the ADM does not match, the links will not work (i.e., it will display as if there is no LKR or may link to the wrong record).

Fill out whichever subfields are necessary ($y$, $v$, $i$, $p$) to match the item form.

If these do not match, the links will not work (i.e., it will display as if there is no LKR). If these fields are omitted, all the linked items will display. If the fields are filled out incompletely and match several items, all the matching items will display. If you adjust the enumerations in items to make them sort correctly you must make the changes in the LKRs as well.

Remember: Every physical piece should have either an item or should have a LKR field corresponding to it.

**Proofreading**

It is always a good idea to check that the link is working properly. If you are only doing a simple link, this can be done effectively in the staff search module. However, if you are dealing with anything complex it is much easier to check on the web. In general it is best to use the web for proofreading because the main purpose of using the ITM link is to improve the display for the public, so it is the web display that matters most.

When searching in Cataloging, you can also tell if an item is linked based on the brief list. This will not show you that it is linked correctly, but simply that it is linked. Items that are linked display the call number from the “parent” record, which means they do not show volume number but do show material type. Items that are not linked show the call number from the holdings record of the “child” which means the specific volume number appears.

We commonly copy a LKR from an existing record into a new record. If you forget to change the enumeration the link will still work (because multiple records can link to the same item), but the call number will not display correctly in the items list.

If consecutive numbers are bound together after the LKR fields have been added, the links should continue to work if the enumeration contains a range of numbers in the subfield $v$. 
If the range of numbers is in subfield i, you must put the matching range in the LKR.

If there is a break in the numbering sequence, the links will not work reliably. It is best to alter the enumerations in the item and then fix the LKR fields to match.

The sublibrary in the item must match the sublibrary in the holdings of the record with the LKR field. Note that if you change the sublibrary in the holdings record, you will need to re-execute the search in the web to check the link.

We have run into mismatched sublibraries in several situations. If one volume of a serial or set is in a different location (such as Special Collections or our Map Collection), we must be sure the analytic matches the correct sublibrary. This is more awkward for our reserve items because our Circulation staff must notify Technical Services to alter the sublibrary in the holdings both when putting the piece on reserve and when removing it. This has also been a problem for us because of a recently completed retrospective conversion project of analytics that did not record storage information in the analytic records (our storage location has its own sublibrary).

**Multiple Copies**

Two copies of the same title need only 1 LKR field as long as the enumerations are the same (i.e., they are not bound differently) and both items are on the same record. If the two copies are in different locations, only the item for the matching sublibrary will display.

A record can have both an item record directly linked to it and an LKR. This happens to us when we have multiple copies and one is cataloged as an analytic and another is cataloged separately. This could also happen if one copy is bound or filmed with another title and the other copy is not.

**Multiple LKRs in One Record**

More than one LKR may be in a bibliographic record. This commonly occurs when an analytic is a serial or a set.

The pieces will be marked with the numbering of the “parent”. The holdings for the “child” record will show its numbering. It typically is not clear which volume in the “parent” corresponds to which volume in the “child.”

We have solved this by using the OPAC note in the item form to specify the numbering of the multi-volume analytic. We remind our added volumes assistants to include this information by means of an instruction in the holdings of the analytic. We put the note “Add Set numbering to OPAC note in item form.” in an 852 subfield x.

When the OPAC note is used, proofreading should always occur in the Web as the OPAC notes do not display in the staff search module.
Sometimes one physical piece is in more than one multi-volume analytic. In these cases you need to be a little creative and add much more complex OPAC notes. You should always look at these in the web to be sure what you are doing will be clear to patrons. In really horrible cases you might consider ripping the books apart and rebinding. It is extreme, but we really are doing this with one title that we have known for years was not being dealt with in a user friendly manner.

“Bound Withs”

Sometimes an entire monograph is bound together with another title and each title has its own bibliographic record. These are typically due to non-publisher binding. Sometimes monographic titles have been bound together with issues of a serial title. Several monographic titles may also be on the same roll of microfilm. The LKR field is used in these situations. If a second copy is added to the “parent” title (i.e., the one with item record on it) that is not bound in the same way, a value will need to be added to the enumeration field and to the LKRs to identify the correct item for linking purposes.

We also may have issues on either side of a title change bound together. There may be multiple LKRs if issues are bound with a preceding and a succeeding title. There also may be multiple LKRs if there is more than one copy.

Display in Items & Circulation Modules

There is no change in the Items or Circulation Modules when the LKR field is used.

This is particularly a problem in Circulation when staff performs a search for the “child” without the piece in hand (such as when a patron has a question about a title). There is no information in the Circulation Module on the “child” that a piece is circulating. There is also no indication that it is linked elsewhere and to what record. The same situation exists in the Items Module but generally poses less of a problem.

The “parent” records in Items and Circulation also do not show that the items are linked elsewhere. This can cause problems in the Items Module. Binding items together may break LKR fields. If the enumerations are altered to fix the sort, the LKR fields will break. We have added the word “Linked” to a local note that displays in the Navigation Window to alert staff to fix the LKR fields as necessary. This also helped us identify completed records during our project to link all our existing analytics records. We add the note when a title is first linked or cataloged.

Circulation notices for linked materials are based on the record where the item actually resides. This means that when a monographic series is barcoded on the series record, the circulation notice will be for something like Lecture notes in mathematics v.1802, rather than for Topics in spatial stochastic processes. It would be very helpful if Circulation could be connected more effectively to the linked records.
Iowa’s Project and Local Problems

The ITM link did not work correctly for us until 14.2, which we implemented in May 2002. In August 2002 a pilot project was done by an assistant in the Serials Section. Money was available for the remainder of the fiscal year to hire student employees and a temporary assistant to help supervise a project. Staff was hired in early September. During the next two semesters, 1 ½–2 FTE of library assistants and on average about eighteen student employees working twelve hours per week linked most of our analytics and bound with titles. At this time, there are close to 102,000 ITM links in our system, linking to around 5,000 analyzed titles and 700 “bound with” or “filmed with” titles. We still have quite a few “filmed with” titles to do and around 500 analyzed titles that need their analytics linked.

We had several problems specific to our project.

1. Our items converted to Aleph with a ten digit number (e.g. 0000000010) based on their order in our old system. These numbers were too long to link (until recently) so they have all been manually corrected. Using “correct” enumerations makes it much easier to make LKRs and easier to proofread them. This correction has had the benefit on multi-copy titles of allowing the recall functionality to work properly. However, on titles with many items, resorting the items is extremely system intensive. Every item that is changed causes another request for indexing. We have had major system slow downs because of this and have to turn off some of the background indexing temporarily in order to deal with the problem. There have been up to 1,000,000 requests backed up because of this work. If the daemon is turned off while changes are being made then it will only index all the items on the record once when it is turned back on.

2. Many of our analytics had only recently been added to our system from an outsourced retrospective conversion project. The student employees were essentially doing quality control on these records. Titles that lacked a series tracing caused the most problem. In some cases, these were simply omitted from the record. In other cases, the record in our system was for a completely different title.

3. We had not recorded volume number of the “parent” in most multi-volume serials. This made it much harder to determine what items should be linked to the multi-volume analytics. We had to either find our old cards or check the pieces.