

Specification

ILCSO ONE-TIME HOLDINGS CONVERSION

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ILCSO HOLDINGS CONVERSION

This specification is for the custom one-time holdings conversion for the Illinois Library Computer Systems Office (ILCSO). In the conversion, DRA will convert ILCSO holdings from the ILCSO Super-Holding file into DRA holdings of various types.

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INTRODUCTION

ILCSO will provide a Super-Holding file from the LCS system. Bibliographic records, transaction records, and other information will be provided and converted separately. Bibliographic records will already have been converted at the time that this conversion is run. Five types of Super-Holding may be encountered to convert.

Type 1: Barcoded Items Connected To Bib Records

DRA will create MFHL and DRA item records for each barcoded item.

A unique MFHL record will be created for each unique combination of title/location/call number. Multiple barcoded and unbarcoded items and summary holdings statements and general notes will be attached to the same MFHL record if they match on these elements.

For each barcoded and circulatable item, a DRA item record will be created. This record contains various circulation, statistical, and historic information about the item. Default values will be applied as described below.

Type 2: Barcoded Items Not Connected To Bib Records

We do not expect items such as this to exist. If they do, they will be skipped. An error message will be generated. DRA uncataloged or on-the-fly items will not be created. If transactions are received for any such items, they will be handled as errors during transaction processing.

Type 3: Non-Barcoded Items Connected To Bib Records

DRA will create MFHL records and DRA item records for each circulatable unit.

A unique MFHL record will be created for each unique combination of title/location/call number. If the non-barcoded item matches an existing MFHL record, it will be added to the same MFHL record as other barcoded or non-barcoded items or other holdings.

DRA will automatically create a barcode for all such items. This will permit the item to be charged or discharged, and will permit staff to easily add a "real" barcode to the item when it comes through the circulation desk. These items will have their status set in the same way as other items, so that they will display appropriately in PAC. All other attributes of the item may also be set.

Since these items may have been previously charged under the old system, the transactions conversion will be able to charge these items, or to set their status or otherwise update them.

Type 4: Non-Barcoded Items Not Connected To Bib Records

We do not expect items such as this to exist. If a Super-Holding record does not contain a valid number in the RID field and does not contain a barcode in the barcode field, then it will be added to the error file and reported in the log, but will not be converted.

Type 5: Summary Holdings Statements And Other Notes Connected To Bib Records

DRA will create MFHL records with summary holdings statements or other notes for these records. A unique MFHL record will be created for each unique combination of title/location/call number. If the summary statement Super-Holding record matches an existing MFHL record, it will be added to the same MFHL record as other barcoded or non-barcoded items.

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Basic Holdings Processing:

- < Files will be copied onto the ILCSO VMS system, and will be converted to ASCII.
- < Prior to this conversion, the bibliographic conversion will be completed. Numeric indexing of the database will be available. The ILCSO "RID" will be placed in the 010\$o field and will be indexed as the original record number (O=) in the database. The database will provide standard indexing of MFHL records, including the "\$" index of the 004 field. Additional indexes will not be used during the holdings conversion, so the conversion is not dependent on their having been created. Fields indexed in the name and subject index will not be affected by the holdings conversion, so initial creation of those indexes may be progressing during the time that the holdings conversion is under-way. Initial keyword indexing should be completed either before or after, but not during, this conversion.
- < The bibliographic database will be UP throughout processing, and MFHL records will be added and updated as appropriate.
- < The empty DRA Item file will be created prior to processing the first batch of Super-Holding records. It will be populated during this processing.
- < ILCSO will provide four tables for each library to be converted. These tables will be converted to fixed-length format and pre-processed as described below, prior to the beginning of conversion.
- < ILCSO will provide separate Super-Holding files for each of their libraries. Each library's holdings will be processed in a separate batch, with multiple libraries being processed simultaneously.
- < The LCS/Barcode cross-reference files will be merged and converted to indexed format for later use during the transactions conversion.
- < The sequential output files generated by each processing batch will be merged and converted to standard indexed format.
- < The transactions conversion will be run AFTER this holdings conversion is complete.
- < The Patron conversion and this holdings conversion are not inter-dependent, so they may be run in either order, or may be run simultaneously.

Error Messages:

DRA will provide error reports listing any problems encountered during processing. Please note that each situation which causes an error to be reported will be listed in these specifications; situations not specified will not cause listings in the log. The files for each library will be processed separately, and the error reports will be similarly separated. Each type of error message will contain unique text identifying the error type, so that VMS "search" or other parsing routines may be used as desired to extract all the messages of a particular type. Each error message which reports a problem in processing a particular super-holding record will contain the campus, title number, LCS location code, LCS call number, and LCS barcode of the super holding record. Each message which reports a problem in processing a particular MFHL record will contain the DRA control number for the record. Each message which reports a problem in processing a particular DRA item record will include the DRA barcode for that item. In addition, additional information sufficient to identify the problem will be included.

Because processing will continue after reporting many types of error conditions, multiple messages may be generated for the same record if multiple conditions apply. However, if any severe error is found such that the record is skipped, then no further processing will be performed to identify if additional conditions might apply, and further error messages would not be created.

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CONVERSION PROGRAM

Primary Holdings Conversion Program:

The primary holdings conversion program will read the Super-Holding records and create appropriate holdings and other records in the DRA system.

During processing, the program will write a status message to the log following the processing of every 10,000 Super-Holding records.

The program will provide a re-start capability, by recording in a restart file the record number of the last record processed. The restart file will be placed in the CURRENT directory. If the program is run multiple times simultaneously, each re-start file will be in a separate default directory, as long as the program is run from an appropriately-different default directory.

If a Super-Holding record cannot be processed, that record will be written, unmodified, to an error file, and an appropriate message will be recorded in the program log. These records may then be reviewed.

Program prompts:

- < Input File Name
 - This is the ASCII Super-Holding file
- < Indexed DRA Item File
- < Table filenames
 - < Notes LCCN Table (library-specific)
 - < Notes UID Table (library-specific)
 - < Lib Use ID Table (library-specific)
 - < Call Number Parse Prefix Table (library-specific)
 - < Location/Material Codes Table (library-specific)
 - < Call Number Enumeration Table
 - < Volume Label Table
 - < 007 Field Conversion Table
 - < Call Number Doc Prefix Table
 - < Call Number LC/DOC Prefix Table
 - < Call Number LC Prefix Table
 - < Call Number No-Prefix Table
- < Output filenames
 - < Sequential Super-Holding Record Error File
 - < Sequential LCS/Barcode Cross-Reference File
- < MARC Database (contains both bibliographic and MFHL records)
- < LCS 2-character library code for this run of the program
- < Starting barcode number, for creation of new barcodes.

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< Is this a Restart (Y/N)

Processing:

The program will prompt the user for the required inputs.

The program will open the appropriate files, and will read tables and related information into memory.

The program will create new sequential output files. It will not append new records to any existing output files,

The program will validate the tables information read. For the five tables containing LCS library codes, the program will compare the LCS library code for each record in the table, and ensure that it matches the code entered by the user for this run of the program. If any exceptions are found, the program will abort with a message, indicating the table being read and the code found.

If this is a re-start, the program will skip past the previously-processed records so that it will be ready to continue at the next unprocessed record.

The program will then process each Super-Holding record. Each Super-Holding record is independent of any other, so a failure on conversion of one record should not cause the program to stop attempting to convert others.

Processing Super-Holding record

- < Read a new Super-Holding record
- < Verify that the LCS library code matches the one entered by the user for this run of the program. If it does not match, write the Super-Holding record to the error file, record an entry in the program log, and continue with the next Super-Holding record.
- < Determine whether this Super-Holding record will create a DRA item record, or only a MFHL entry. (is this a circulatable unit?)
- < If a DRA item record should be created, determine the barcode to be used.
- < If a DRA item record should be created, initialize a new item record buffer.
- < Based on the RID list in the Super-Holding record, determine the list of DRA title control number(s) to which this holding will be linked.
- < Look up the Super-Holding record in the location and material code table. If we are creating a DRA item record, then get the values for location, material code, item status, and reading level. If we are only making a MFHL entry, then we only need the location from this table.
- < Determine the location to be used. This will either be the location determined above, or an over-ride location based on the library Use ID.
- < Parse the call number from the Super-Holding record. Subfields and call number type will be identified.
- < With the library location, DRA title control number list, and parsed call number, locate the existing MFHL record to which this holding will be added, or initialize a new MFHL record.
- < If needed, get the bibliographic records to which this holding will be attached. This will be required if we are creating a new MFHL record.
- < Parse the notes fields in the Super-Holding record, and put the information into the MFHL record as appropriate

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- < Parse the enumeration field of the Super-Holding record, and put this information into the MFHL record.
- < Finish populating the remaining data in the MFHL record, and put or update the record in the database.
- < Finish populating the remaining data in the item record, and put the record into the sequential output file (ITMMST).
- < Finish populating the remaining data in the LCS/barcode cross reference record, and add the record to the sequential output file.
- < Continue with the next Super-Holding record.

Program termination:

After all Super-Holding records have been processed, close all files and print the following statistics and information:

- < Last DRA barcode number created (for unbarcoded material)
- < Number of Super-Holding records read
- < Number of Super-Holding records errors skipped
- < Number of DRA item records created
- < Number of summary holding fields created
- < Number of notes from UID fields created
- < Number of DRA barcode numbers created (for unbarcoded items)
- < Number of New MFHL records created
- < Number of existing MFHL records updated
- < Number of LCS/barcode cross-reference records created.

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FURTHER DETAIL

Process user prompts:

The user will be prompted for 20 inputs when the program is run.

- < Input file name: File must exist, and have correct attributes (sequential, fixed length, 690 bytes).
- < LCS/.Barcode Cross/Reference File: File must exist and have correct attributes (indexed, fixed length, 38 bytes)
- < Table filenames: All twelve tables specified must exist.
- < Output filenames: Program must be able to create files with these names.
- < Marc database: Must be able to connect to database in WRITE mode.
- < LCS library code: Convert input to upper-case, collapse spaces and tabs, Validate that length is two.
- < Starting barcode number: Validate that it is length 14, all numeric, begins with "8888".
- < Restart: convert to upper-case, collapse spaces and tabs, remove all but first character. Must be "Y" or "N".
If "Y", then locate and open the restart file. If restart file not found, abort.

Should Item Record Be Created:

Check the holding type code field in the Super-Holding record. If it is "S", then this is a summary holdings record. No DRA item record should be created.

Otherwise, check the Location, Copy, Volume, and Loan Period fields in the Super-Holding record. If ALL of these four fields are blank, then this is a summary record; no DRA item should be created.

Otherwise, check the record to determine if a note will be generated from the UID field. If so, no DRA item record should be created. (Note: This check may be deferred until the notes processing step. If so, then if a note is identified at that time, the creation of the DRA item would be canceled. If the creation is canceled, and if the barcode field in the super-holdings record is not blank, an error message would be written to the log).

Unless one of these three conditions is met, then this record represents a circulatable unit, and a DRA item record will be created.

If a DRA item record is not to be created, check the BARCODE field in the Super-Holding record. If it is not blank, then write an error message to the program log containing the barcode number. Still do not create a DRA item record.

Which Barcode Should Be Used:

If a DRA item record will be created:

- < Determine the barcode number to be assigned, either from the Super-Holding record or through creation of the next new number.
- < Validate the barcode format (length, character types, check-digit). If it is invalid, use the number anyway, but write a message to the log.
- < Ensure that this barcode has not previously been used, by verifying that the barcode is not found in the Circle_Item_Master file.

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If the number HAS been used, then write the Super-Holding record to the error file and skip. Write a message to the log.

Creation Of New Barcodes:

When needed by the program, an item barcode will be created which begins with the five digits "38888", followed by two digits representing the batch of holdings being processed, followed by six digits, followed by a check-digit (14-digit CLSI algorithm). The six-digits will be sequentially assigned to all such items as they arise during the conversion batch. The beginning barcode number will be specified for each batch as a prompt to the program.

New barcodes may be needed as described below. Cases include processing of circulatable items which do not yet have a barcode.

Procedure for establishing a new barcode is to take the last barcode number used (or the initial number entered at program startup), and look at the first 13 characters. Increment by one. Now compute the check-digit and assign that value as the fourteenth digit. The actual 14-digit value entered at program startup should NOT be used on an actual item.

Determining Bib Record From RID List:

Previous descriptions of the handling in TAOS of records with multiple RIDs will be somewhat different in DRA/Classic, due to the different approach to the issue by the DRA/Classic System and the Taos System. While Taos connects the same item to multiple MFHL, and a MFHL to only one bib, DRA/classic connects an item to only one MFHL and one MFHL to multiple bibs.

These records will be handled in DRA/Classic in the following manner:

- < For each RID, re-format the RID by removing the leading characters "ocm", if present. All digits and all other leading alpha characters will be retained. Normalize the text of the RID using sort_move (This will convert lower-case characters to upper-case, remove most punctuation, condense multiple spaces, and perform other normalization so that the text will match the field as indexed from the database).
- < Search the database to locate one or more bibliographic records. Note: the database will have the RID indexed under the "O=" key.
 - < If none is found, skip this RID, and report to the log.
 - < If more than one is found, keep the first one, and report the duplication to the log.
 - < If exactly one is found, keep it.
- < Identify the FIRST bibliographic record found for the FIRST usable RID. This bibliographic record will be considered the PRIMARY bibliographic record for this item.
- < The DRA system will link the holding to each of the bibliographic records identified.
- < If NO bibliographic record is found for any of the RID's listed, then write the unmodified Super-Holding record to the error file, write a message to the program log, and continue with the next Super-Holding record.

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Processing the Location and Material Code table:

For every Super-Holding record, this table will be used to identify the appropriate location. Items, after a barcode has either been identified or created, will use the additional item-specific columns of the table to also set material codes, reading level, and various statuses.

Summary holding statements and title level notes from the UID field will not have items created, and so will not use the item-specific portions of the table.

The Super-Holding record will be examined to match the following two fields, to find the section of the table which applies. If no match is found, then wildcard records will be checked to locate the matching records.

- < Location
- < Loan Period

Once the correct portion of the table has been identified, the call number of the Super-Holding record will be examined. This call number is the unprocessed raw text taken from the call number field of the Super-Holding record. This call number examination is unrelated to the call number parsing specified in the next section.

Compare the text of the call number to the text listed in the location/material code table. Look for a match where the complete text in the table exactly matches the beginning text in the Super-Holding record call number.

The table includes four keywords, which each refer to a large number of additional strings. These are "DOC-PREFIX", "LC/DOC-PREFIX", "LC-PREFIX", and "NO-PREFIX". For each of these keywords, a table of text entries is provided. If any of these keywords appear in the location and material code table, then check the text in the call number field against each of the entries in the related table.

The sequence of comparison is vital. The call number may match multiple lines in the location and material code table, but it is the FIRST which must be used. For example, if the table contained entries for "A." and "A", then if the call number began with "A.", the first line must be used even though both lines would match.

If there is no match found otherwise, the wildcard entries in the table should provide a match.

If the match is found by using wildcards on ALL THREE of the look-up fields (Location, Loan Period, and Call Number), then write a message to the log and continue processing.

If there is no match found, write a message to the log. Write the Super-Holding record to the error file, and skip this record.

Once a match has been found, if a DRA item record is being created, the following information will be used:

- < Location
- < Material code
- < Reading level
- < Non-request status
- < Missing status
- < Withdrawn status
- < Non-circulating status
- < Local-request status

If a DRA item record is NOT being created, the following information will be used:

- < Location

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Location Over-ride From Library Use ID:

For every Super-Holding record, this table will be used to determine whether the 6-digit DRA location code identified above will be over-ridden. This may apply to all types of Super-Holding records.

This table will only over-ride the location code. For items, the material code, reading level, and status codes set above will not be changed,

For many libraries, the Library Use ID table will be empty (no lines). If this is the case for a particular run of the program, then it should skip this step.

If the table includes one or more lines, then this check must be performed.

- < Check the Library Use ID field in the Super-Holding record. If it is blank or if it is all zeros ("00000000"), then no further check is needed.
- < Take the value in the Library Use ID field of the Super-Holding record
- < For each line in the table, compare the value of the Library Use ID field in the Super-Holding record to the one in the table. If they do not match, then continue with the next line in the table. If all lines are compared with none matching, then there is no over-ride. The location identified above in the Location and Material Code table will be used.
- < If the Library Use ID does match, then get the location specified in the Library Use ID table (column C), and use this location instead of the one previously identified.

Programming note: The sequence in which lines in the table are checked is not important. A given library use ID will only appear on a single line. So if it is more efficient, the method used to identify a match may be other than a sequential search.

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Call Number Parsing Routine:

ILCSO indicates that ALL call numbers in Super-Holding records do NOT contain ANY internal spaces.

Some general principals of this routine:

- < This call number parsing is unrelated to the examination of the call number prefix conducted in the previous step.
- < We will put all of the text into the call number field once, but will not put any of it into the field twice. For example, if we put a prefix into subfield k, then it is no longer considered part of the string and should not also be put into subfield h.
- < Retain any internal spaces in a segment of the call number. However, if a space is the first or last character to be put into a specific subfield, then the leading or trailing space(s) should be trimmed.
- < If the last character of subfield h is a period, and the first character of subfield i is a letter, then move the period from subfield h into subfield i, with no space following it.
- < The Enumeration table is NOT case-sensitive. This table should **not** include any spaces. However, it should include any periods required.

Summary: Identify prefix and identify type of call number as much as possible. Then, starting at the beginning, look for a pattern of alphabetic characters, numbers, periods, and spaces. Once this pattern is broken, stop and parse the call number. Determine final best-estimate of call number type, and set indicator accordingly.

Five types of call numbers will be identified: LC, Dewey, NLM, SuDocs, and Local. Any call number which is not one of the first four will be set as Local. If a Local call number is identified but is not defined as valid for this LCS library and prefix, then write a message to the log and continue.

1. Get call number text string from Super-Holding record. Trim trailing spaces.
Note: The algorithm assumes that the text string will contain no internal spaces.
2. Identify prefix and potential call number type(s), based on the call number prefix table.
3. Strip prefix from the string, if present.
Insert the prefix into subfield k or subfield c, depending on whether the call number prefix table indicates the prefix should be indexed or not (subfield k is indexed, subfield c is not).
4. Exclude some call number types from the list of potential types.
 - < The initial list of potential types for this record will be found in the call number parse prefix table. It may include one or more of the following: LC, Dewey, NLM, SuDocs, and Local.
 - < If the list of potential types includes Local, then remove Local from the list of potential types.
 - < If the list of potential types includes Dewey, check the first three characters of the remaining call number. If all are not numeric (000-999), then remove Dewey from the list of potential types. If shorter than three characters, then remove Dewey from the list.
 - < If the list of potential types includes LC, NLM, or SuDocs, check the first character of the remaining call number. If not upper-case alphabetic (A-Z), then remove LC, NLM, and SuDocs from the list of potential types.

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- < If the list of potential types includes SuDocs, check to see if the call number includes a colon. If not, then remove SuDocs from the list of potential types.
- < If the list of potential types includes both SuDocs and either LC or NLM, then remove LC and NLM from the list of potential types.
- < If the list of potential types includes LC, locate the first digit in the string. If the digit is not within the first four characters, or if the digit is preceded by any character other than a letter, remove LC from the list of potential types. Check the first character. If it is either "I", "O", "W", "X", or "Y", then remove LC from the list of potential types. Check the first two characters. If they are in the range "QS" through "QZ" then remove LC from the list of potential types.
- < If the list of potential types includes both LC and NLM, then remove NLM from the list of potential types.
- < If all types have been removed, then use Local.

A single call number type will have now been identified. The call number will either be this type, or it will be eliminated as a possibility during the parsing below, and "Local" will be used instead.

1. If the type is either SuDocs or Local:
 - < Put the complete call number into subfield h.
2. If the type is Dewey:
 - < Find the first alphabetic character (A-Z)
If not found, use Local. Put the complete call number into subfield h, and continue with step 8.
 - < Use the alphabetic and divide the field into subfields prior to this letter.
3. If the type is either LC or NLM:
 - < In the call number, locate the first numeric character (0-9).
If not found, use Local. Put the complete call number into subfield h. Continue with step 8.
 - < Following this numeric, find the first alphabetic character (A-Z)
If not found, use Local. Put the complete call number into subfield h, Continue with step 8.
 - < Following this alphabetic, find the first period, or number.
If not found, divide the text immediately prior to this alphabetic.
 - < Otherwise, following this period or number, find the first alphabetic character (A-Z)
If not found, backup. Use the alphabetic identified above and divide the field into subfields prior to this letter.
 - < Otherwise, following this alphabetic, check the remainder of the field. If there are NO remaining characters, backup. Use the alphabetic identified above and divide the field into subfields prior to this letter. Continue with step 8.
 - < Following this alphabetic, find the first period, or end-of-text.
 - < Compare the string beginning with this letter and ending at the period, or end-of-text, with the entries in the enumeration table.
 - < If the exact text is found in the enumeration table (not case-sensitive), then this is volume information, so backup. Use the alphabetic identified previously and divide the field into subfields prior to this letter.

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- ⟨ If not found in the enumeration table, use this alphabetic character and divide the field into subfields prior to this letter.
- 4. For LC, Dewey, and NLM call numbers, if the last character of subfield h is a period, and the first character of subfield i is a letter, then move the period from subfield h into subfield i prior to the letter, with no space following it. Note that there may be no period in some call numbers of all types.
- 5. Set the appropriate values for the field indicators.
 - ⟨ The first indicator is set as follows:
 - ⟨ "0" for LC
 - ⟨ "1" for Dewey
 - ⟨ "2" for NLM
 - ⟨ "3" for SuDocs
 - ⟨ blank for Local
 - ⟨ The second indicator is always set to blank.
- 6. If Local was not one of the original valid call number types based on the call number parse prefix table, but we used Local after all, then print a message to the log.

If a new MFHL record is created, the call number will be placed into field 852. If a MFHL record already exists with a matching 852 (location plus call number) and matching 004 fields, then this record will be merged into the existing record, and the 852 field will not be duplicated.

Subfields in the 852 field will be entered into the 852 field in the same sequence as the related text appeared in the Super-Holding record. That sequence is subfield c, k, h, and i. Unused subfields are never created.

Selecting MFHL Record To Use Or Add:

In the steps above, if there is more than one bibliographic record found, then look at each MFHL record connected to the PRIMARY bibliographic record. If it does not match this agency/call number, then skip this MFHL and continue with the next one attached to this same bibliographic record. If it does match, then check to determine if it contains multiple 004 fields. If not, skip. If it does, then check to see if it contains EXACTLY the same list of bibliographic records in its multiple 004 fields as the list of bib control numbers identified above. If not, then skip this MFHL record and continue with the next. It is not important that the sequence of the 004 fields matches the sequence identified for this Super-Holding record; but only that the same list of records appears on both.

- ⟨ If we find a MFHL record with the right list of DBCNs in the 004, and also the right agency and call number, then use THIS MFHL. Add this item or holding to it.
- ⟨ If we do not find a MFHL with this exact list of DBCNs, agency, and call number, then create a new MFHL. Include all the DBCNs in multiple 004 fields. The DBCN of the PRIMARY bibliographic record will be entered in the FIRST 004 field on the record.

If there was only one bibliographic record identified above, then look at each MFHL record connected to that bibliographic record. If it does not match this agency/call number, then skip this MFHL and continue with the next one attached to this same bibliographic record. If it does match, then check to determine if it contains multiple 004 fields. If it does, skip.

- ⟨ If we find a MFHL record with this single DBCN in the 004, and also the right agency and call number, then use THIS MFHL. Add this item or holding to it.

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- ⟨ If we do not find a MFHL with this single DBCN, agency, and call number, then create a new MFHL. Include the DBCNs in the 004 field.

If we are creating a new MFHL record, then initialize a new MARC record buffer, and add the 852 field identified above. In this same 852 field, insert subfield b as the first subfield in the field. Add the six-digit agency code identified above as the text of the subfield. Additional fields and subfields will be specified later in these specifications.

Note: ILCSO strongly believes that all items at the same agency and same DRA cnum will have the same call number.

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Notes Creation:

Program will check both the LCCN field and the UID field for notes, based on two Notes tables.

Note that all lines in each table must be compared to the record to determine if the record contains one or more notes.

LCCN CHECK:

- < First, check the LCCN field. If blank, skip the LCCN field and continue with the UID field.
Otherwise, check the LCCN notes table. See the section below on table processing.
- < If the LCCN notes table is empty, then the LCCN field is not a note at this library. Note that this will be the case at most libraries. If any records exist in the table, it must be checked to determine if a match is found. See the section below on table processing.
- < If a note is found, format it and add it to the appropriate record. See the section "Format the note" below. If it is not a note, then the LCCN field will not be converted.

UID CHECK:

- < Check the Super-Holding field Holding Type Code. If this field has the value of "S" then the UID field is a summary holding note, type "SU". There is no need to compare the table. It should be placed into field 866 subfield a, following the duplication checks listed below. Otherwise, continue looking for a note.
- < Check the UID field. If blank, skip the UID field.
- < Otherwise, check the UID notes table. See the section below on table processing.
- < If the text in the UID field is a note, format it and add it to the appropriate record. See the section "Format the note" below.
- < If the text of the UID field is not a note, then it IS a complex holdings statement. See the section below on parsing the enumeration and volume fields.

Table Processing:

- < Each line in the table must be compared to the Super-Holding record to determine if the LCCN or UID field is a note or a holdings statement until a match has been found, or until all have been checked. If all lines in the table have been checked with no match for this field, then the text of the field is not a note.
- < It is possible that more than one line in the table will match this record. If so, then the FIRST matching record in the table should be used to determine where the note will be placed in the DRA system. After finding a match, there is no need to continue examining other lines in the table.
- < For each line in the table, check columns E, F, and G. In each line, one will have data and the others will not.

If column E has data:

(NOTE: all text in the UID field will be all upper-case. So matches on the text need not handle lower-case text.)

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- < Compare the TEXT of the UID field to the text in the table.
- < If the table text starts with ">>" and ends with "<<", then
 - < remove these characters. The ENTIRE text of the note in the UID field must match exactly the remaining text in the table. Otherwise, skip this line of the table, and check the next.
- < If the table text starts with ">>" but does not end with "<<", then
 - < Remove these characters. The text of the note must BEGIN WITH the remaining text in the table. The text in the UID field may have additional characters at the end. Otherwise, skip this line in the table, and check the next. If the table text does not start with ">>" but ends with "<<", then
 - < remove these characters. The text of the note in the UID must end with exactly the remaining text in the table. Otherwise, skip this line in the table, and check the next.
- < If the table text does not start with ">>" and does not end with "<<", then
 - < The text of the note must CONTAIN the complete text in the table. The text in the UID field may have additional characters at the front or end. Otherwise, skip this line in the table, and check the next..
- < If the text matched above, then the complete text of the UID field is a note. Now format the note and add it to the appropriate record. See the section "Format the note" below.

If column F has data:

- < Get the VALUE of the BIB UNIT LOW field in the Super-Holding record. This is zero-filled, numeric data.
- < Get the text of column H.
 - < If the location in column H is blank, then no location match is performed. Continue with the checks for column F, below. Note: It will not be possible to perform an exact location match against the blank location in the super-holdings record.
 - < If the location in column H is not blank, get the text in the LOCATION field of the super-holding record (3-character field).
 - < The complete text of the LOCATION field must match exactly the three characters from column H. If it does not match, then this line of the table does not match and there is no need to check the contents of column F. Continue with the next line in the table. If the text DOES match, continue with the checks for column F, below.
- < Get the text of column F in the table. It should either begin with the character ">", "=", or "<". This means greater than, equal to, or less than. Otherwise, skip this line of the table. The remainder of the text in column F should be numeric, in the range zero-99999. This value may contain leading zeros and/or trailing spaces.
- < Compare the value of the number in the BIB UNIT LOW field to the value of the number in column F. Use the appropriate operator. If it matches, then the content of the UID field is a note. Otherwise, skip this line in the table, and check the next..
For example, if the text in column F is ">89999", and the bib unit low field

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contains the number "00345" then it is not a note. But if the text in the table contains the value "<89999", then the text in the UID field is a note.

- ⟨ Now format the note and add it to the appropriate record. See the section "Format the note" below.

If column G has data:

- ⟨ If the call number field in the super holding record has data, continue this check.
- ⟨ Get the content of the CALL NUMBER field in the Super-Holding record. This is blank-filled, left-justified data.
- ⟨ Get the text of column G in the table. Trim trailing blanks.
- ⟨ If the text of the call number field begins with the exact characters in the table, then it is a match, **and the content of the LCCN field is a note**. If the call number field does not begin with the exact text, then it is not a match, so continue with the next line in the table.
Note: the text in both fields is all-caps, no internal spaces. No normalization is needed. Any punctuation in the call number and the table must be retained, and must match (this may be a period).
Note: If the text in the call number is shorter than the text in the table, it is NOT a match. The full text in the table must match.
- ⟨ Now format the note and add it to the appropriate record. See the section "Format the note" below.

Format the note:

If we have determined that we have one or two notes, from the LCCN field and/or the UID field, then look at columns C and D of the matching records from the LCCN Notes table or the UID Notes table to determine where the note should be placed.

Column C is either P or S (patron or staff). Column D is either "T" or "SU" (title or summary).

For values P/T (patron/title)

Note goes into field 852, subfield z

Validate that the MFHL record does not yet contain a note with this exact text. If it does, skip.

For values S/T (staff/title)

Note goes into field 852, subfield x

Validate that the MFHL record does not yet contain a note with this exact text. If it does, skip.

For value */SU (all summary notes, ignore column C)

Note goes into field 866 subfield a

Duplication check:

If both an LCCN note and a UID note were found on this record, check to determine if they are identical, both in the exact text of the note and in where the note will be placed (**852\$x, 852\$z, 866\$a**). If they are identical, skip one and only add the note once.

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Parsing The UID Enumeration and Volume Fields:

If the VOLUME field in the Super-Holding record is blank, and the UID field is either blank or contains a note, then the enumeration field for this item is blank.

If the VOLUME field in the Super-Holding record is blank, and the UID contains a complex holdings statement, then process the UID field as described below.

If the VOLUME field in the Super-Holding record is not blank, and the UID field is either blank or contains a note, then process the VOLUME field as described below.

If the VOLUME field in the Super-Holding record is not blank, and the UID field contains a complex holdings statement, then write an error message to the program log. Ignore the VOLUME field. Process the UID field as described below.

Parse the UID field enumeration:

This step will determine the enumeration to be entered into the 852 or 853/863 fields of the holding record from the UID field. Skip this step if no DRA item record is being created.

Note: The VOLUME field will be ignored in all cases when parsing the UID field. Instructions for parsing the VOLUME field are below.

Note: The UID field "PT.A" should become caption "Pt." and value "A".

Note: UID information will never be parsed to a second or third level. All enumeration derived from UID information will be placed in 863 subfield a and/or 863 subfield i. Captions derived from UID information will be placed in 853 subfield a and/or 853 subfield i.

Note: It is essential that the creation of subfields in the 853 and 863 fields match.

The ILCSO UID field will never contain lower-case characters. It may contain upper-case letters, digits, punctuation, and spaces.

Unless otherwise determined, the content of the UID field will become the volume field for the item created. However, the BIB LOW, YEAR LOW, and YEAR HIGH fields may contain dates. If so, then the date will be removed from the text of the UID, and will be placed into the 863 field. Captions will be determined based on whether dates, volume table matches, date matches, or otherwise.

1. If an item record is not being created, skip this step completely.
2. If the MFHL record is type x, skip this step completely
3. If the UID field is blank, and if MFHL record is type v or type y, then
 - < Do not create field 853 or 863 subfield a
 - < Create appropriate linking subfield (\$8). Barcode in 863 \$p. Copy number as appropriate.
 - < Write a message to the log, and skip remaining steps of this procedure.
1. If the YEAR LOW field is blank, then there is not year information:
 - < If the first character of the UID field is not alphabetic (A-Z), then
 - < Field 853 subfield a is "v."
 - < Field 863 subfield a is the complete text of the UID field.
 - < If the first character of the UID field is alphabetic (A-Z), then

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- < Match the initial characters in the UID field with the text in the volume label table.
 - < If no match is found, or if the complete text of the UID field matches the line in the volume label table, or if the matched text in the UID field is followed **immediately** by a letter (A-Z), then
 - < Field 853 subfield a is **"(unit)"**.
 - < Field 863 subfield a is the complete text of the UID field.
Examples: volume label table contains the text "PT" and the UID field contains any of the following: "PT", "PTA", "PART"
 - < If a match is found, and if the character **immediately** following the matched characters is not a letter, then
 - < Field 853 subfield a is the normalized text from the volume label table.
 - < Field 863 subfield a is the remaining un-matched text in the UID field. Remove any leading periods or leading spaces.
Examples: volume label table contains the text "PT" and the UID field contains any of the following: "PT3", "PT.3", "PT.A", "PT A"
1. If the YEAR LOW field is not blank, then there is year information:
If there is both year and non-year information, then the non-year information will be put into subfield a, and the year information will be put into subfield i.
If there is only year information, then it will be put into subfield a.
- < Check the first character in the bib low field. If it is zero, then
 - < Compare the last four characters of the bib low field with the four characters in the year low field. If they match, then we only have year information
 - < Field 853 subfield a is "(yr.)".
 - < Field 863 subfield a is the complete text of the UID field.
 - < If they do not match, then we have both year and non-year information. Continue below.
 - < If the first character **in the bib low field** is not zero, or if the last four characters of the bib low field do not match the four characters in the year low field, then we may have both year and non-year information.
 - < If the first character of the UID field is not alphabetic (A-Z), then
 - < If the year low field matches the year high field, and **exactly** matches the text in the UID field, then we do not have non-year information after all.
 - < Field 853 subfield a is "(yr.)".
 - < Field 863 subfield a is the complete text of the UID field.
 - < If the year low field matches the year high field, and does not match exactly the text in the UID field
 - < Examine the UID field to see if it contains the four digit string in the year low field. If so, delete these four characters from the UID field. If the characters are immediately preceded by a slash, delete the slash. Combine multiple spaces to a single space.
 - < Field 853 subfield a is "v."
 - < Field 853 subfield i is "(yr.)".
 - < Field 863 subfield a is the complete remaining text of the UID field.
 - < Field 863 subfield i is the four-digit text of the year low field.

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- < If the year low field does not match the year hi field
 - < Examine the UID field to see if it contains any of the following strings:
 - < four digit string in the year low field, followed by hyphen, followed by four-digit string from year high field.
 - < four digit string in the year low field, followed by slash, followed by four-digit string from year high field.
 - < four digit string in the year low field, followed by hyphen, followed by last two digits of the four-digit string from year high field.
 - < four digit string in the year low field, followed by slash, followed by the last two digits of the four-digit string from year high field.

Example: "1987-1992", "1987/1992", "1987-92", "1987/92".

If so, delete this character string from the UID field. If the characters are immediately preceded by a slash, delete the slash. Combine multiple spaces to a single space. Delete trailing commas.

- < Field 853 subfield a is "v."
- < Field 853 subfield i is "(yr.)".
- < Field 863 subfield a is the complete remaining text of the UID field.
- < Field 863 subfield i is the four-digit text of the year low field, followed by a hyphen, followed by the four digit text of the year high field.
If the UID does not contain any of these strings, then
 - < **Field 853 subfield a is "v."**
 - < **Field 853 subfield i is "(yr.)"**
 - < **Field 863 subfield a is the complete text of the UID field.**
 - < **Field 863 subfield i is the four-digit text of the year low field, followed by a hyphen, followed by the four digit text of the year high field.**

- < If the first character of the UID field is alphabetic (A-Z), then
 - < Match the initial characters in the UID field with the text in the volume label table.
 - < If no match is found, or if the complete text of the UID field matches the line in the volume label table, or if the matched text in the UID field is followed **immediately** by a letter (A-Z), then
 - < Field 853 subfield a is "**(unit)**".
 - < Field 863 subfield a is the complete text of the UID field.

Examples: volume label table contains the text "PT" and the UID field contains any of the following: "PT", "PTA", "PART"

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- < If a match is found, and if the character **immediately** following the matched characters is not a letter, then
 - < Field 853 subfield a is the normalized text from the volume label table.
 - If the year low field matches the year high field, and does not match exactly the text in the UID field
 - Examine the UID field to see if it contains the four digit string in the year low field.
If so, delete these four characters from the UID field. If the characters are immediately preceded by a slash, delete the slash. Combine multiple spaces to a single space.
 - Field 853 subfield a is the normalized text from the volume label table, matched above.
 - Field 853 subfield i is "(yr.)".
 - Field 863 subfield a is the complete remaining text of the UID field.
 - Field 863 subfield i is the four-digit text of the year low field.
 - If the UID does not contain this string,
 - Field 853 subfield a is the normalized text from the volume label table, matched above.
 - Field 863 subfield a is the remaining un-matched text in the UID field. Remove any leading periods or leading spaces.
 - If the year low field does not match the year hi field
 - Examine the UID field to see if it contains any of the following strings:
 - four digit string in the year low field, followed by hyphen, followed by four-digit string from year high field.
 - four digit string in the year low field, followed by slash, followed by four-digit string from year high field.
 - four digit string in the year low field, followed by hyphen, followed by last two digits of the four-digit string from year high field.
 - four digit string in the year low field, followed by slash, followed by the last two digits of the four-digit string from year high field.
Example: "1987-1992", "1987/1992", "1987-92", "1987/92".
 - If so, delete this character string from the UID field. If the characters are immediately preceded by a slash, delete the slash. Combine multiple spaces to a single space. Delete trailing commas.
 - Field 853 subfield a is the normalized text from the volume label table, matched above.
 - Field 853 subfield i is "(yr.)".
 - Field 863 subfield a is the complete remaining text of the UID field.

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- Field 863 subfield i is the four-digit text of the year low field, followed by a hyphen, followed by the four digit text of the year high field.
- If the UID does not contain these strings,
- Field 853 subfield a is the normalized text from the volume label table, matched above.
 - Field 863 subfield a is the remaining unmatched text in the UID field. Remove any leading periods or leading spaces.

1. If the UID field does not match any of the cases above, then
 - < Field 853 subfield a is "(unit)".
 - < Field 863 subfield a is the complete text of the UID field.

Parsing The **VOLUME** Field Enumeration:

This step will determine the enumeration to be entered into the 853/863 fields of the holding record from the VOLUME field. Skip this step if no DRA item record is being created.

Note: The UID field will be ignored in all cases when parsing the VOLUME field.

Note: VOLUME information will never be parsed to a second or third level.

If the volume field is not blank and is not composed of all zeros, then remove any leading zeros. The program will create an 853/863 pair. The program will use the number **from VOLUME** as the enumeration **in 863 subfield a** and will use the text "v." as the caption **in 853 subfield a**.

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MFHL Record Creation:

When a holding is being processed which does not match a holdings record already created, then initialize a new MFHL record.

First, determine the MFHL record type.

- < If there is only one bibliographic record to which this MFHL will be linked, then get that record. Check the MARC record type.
 - < If the MARC bib level is “b” or “s”, then this MFHL record will be type “y”.
 - < Otherwise, check to see if we have identified any volume information for this holding. If we have identified summary holdings text to be placed into the 866\$a field, then use type “v”. If we have identified enumeration information when we parsed the enumeration and volume fields, then use type “v”.
 - < Otherwise, use type “x” (single-part monograph).
- < If there are more than one bibliographic record to which this MFHL will be linked, then get the first record.
 - < If this bibliographic record is a serial (MARC bib level “b” or “s”), then the MFHL record will be created with type “y”.
 - < Otherwise, get each of the other bibliographic records to which this MFHL will be linked. If ANY of them are serial records (MARC bib level “b” or “s”), then this MFHL will be created as a type “y”.
 - < Otherwise, check for summary or enumeration or volume information, as above, and set the record type to “v” or “x”.

Leader:

Byte 05 (record status)	Set to “n”
Byte 06 (type of record)	Set to “x”, “y”, or “v”, as determined above.
Byte 17 (encoding level)	Set to 5 for all MFHL record types
Byte 18 (item information in record)	Set to “ ” (vertical bar) for unspecified, for all record types. (Byte matches the DESC byte in bib records)

Field 004:

Field 004 contains the DRA control number of the title to which this MFHL record is attached. If the MFHL record is attached to more than one bibliographic record, then each will be contained in repeating fields 004.

Note that while the system will permit the user to view the MFHL record and any attached items as holdings from any of the listed bibliographic records, it will use the FIRST 004 field when it tries to get the title record which is attached to an item or MFHL record.

Field 007:

If the bibliographic record contains a 007 field, the first 007 field in the bibliographic record will be copied to the MFHL record. If multiple bibliographic records are linked to the MFHL record, then the 007 field will be taken from the FIRST listed. If the bibliographic record does not contain a 007 field, the 007 will be created based on the FIELD_007_CONVERSION_TABLE.TBL.

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Field 008:

Bytes 00-05 (date record created)	Set to the system date when program is run (YYMMDD). Note that USMARC does not support four-digit year in this field.
Byte 06 (acquisition status)	set to 0 (unknown) for MFHL record types v and y, set to 2 for MFHL record type x.
Byte 07 (method of acquisition)	Set to u
Bytes 08-11 (intent to cancel)	Set to blanks
Byte 12 (general retention policy)	Set to 0 (unknown)
Bytes 13-15 (specific retention policy)	Set to blanks
byte 16 (completeness)	Set to 0 for type y and v, set to 4 for type x
bytes 17-19 (number of copies)	Set to total number of items connected to the MFHL record for type x, set to highest copy number used for type v and y. If no items have been created for this MFHL record, then use the value of "001". This number is right-justified, zero-filled.
byte 20 (lending policy)	Set to u
byte 21 (reproduction policy)	Set to u
bytes 22-24 (language of the coded data)	Set to "eng"
byte 25 (separate or composite copy report)	Set to 0 if field 008 number of copies is 001, set to 1 if copies is other than 001
bytes 26-31 (date of report)	Set to the system date when program is run (YYMMDD). Note that USMARC does not support four-digit year in this field.

Please note that in Field 008 bytes 17-19 (number of copies), for multi-part and serial records the program will use the highest numbered copy which appears in the holdings on this record. This means that if some copy numbers have been skipped, moved, withdrawn, or are otherwise not included, the value in this field will still be set to the highest number used. However, for single-part items, this number will be the actual number of items, and does not consider copy number.

This field is ALWAYS exactly 32 characters in length.

Field 852 (holding level):

Field 852 will be created with a minimum of subfield b, which contains the 6-digit DRA agency code assigned to the location of this holding.

The appropriate call number subfields, including subfields c, k, h, and i, will be inserted into this field, if they are not empty. An empty subfield will never be created.

MFHL-level notes will be added to the field, as appropriate, at a later point.

Piece-specific information will be added, as appropriate, at a later point.

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ILCSO Code Index Information:

Information placed into piece-level notes cannot be indexed. Because DRA understands that ILCSO wishes to be able to search holdings by LCS code for some time to come, these codes must be inserted into the MFHL record. DRA proposes placing these into field 988. The data will be combined into a single subfield.

The program will add a 988 field to each MFHL record created. The data in the field will be based on the data in the first super-holdings record processed for this MFHL record. It will contain the following:

- < Field 988
- < Indicator values blank/blank
- < Subfield a: LCS Campus code from the Super-Holding record, followed by LCS title number. No spaces will be inserted in the field. Before creating this field, remove leading zeros from the LCS title number field.

Please note that the DRA system will not automatically update this field for any reason. This field will require extra disk space to be devoted to it. If indexes are built from this field, then this will also require additional disk space. This field will not appear in most system displays.

Additional fields:

The record creation date, record modification date, DRA database control number, and 001 field will be system-generated, and will be added to the record when it is added to the database.

Sequence of fields:

Fields will appear in the MFHL record in the sequence:

001
004
007
008
852
988

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Add Holding and Note Information To MFHL Record:

Additional fields containing holdings and note information representing this Super-Holdings record will be added to the MFHL record. All fields should be inserted in NUMERIC order, by field tag. If multiple fields contain the same tag number, and if they contain subfield 8, then they should be inserted in NUMERIC order, by the value of the linking number in subfield 8. Fields of the same tag with the same linking number should be added sequentially, in the order processed. In this conversion, we will not create multiple occurrences of fields which do not contain subfield 8.

Enumeration field is blank:

- < If this item has a DRA item record being created:
 - < the 852 field for this copy will be added when the item record is created.
 - < If an existing MFHL record is being used, then:
 - < If the number of copies is "001", then change field 008, byte 25 (composite report) to "1".
 - < Increment field 008, bytes 17-19 (number of copies).
- < If this item does not have a DRA item record being created:
 - < Continue with the copy number processing, below.

Enumeration field is not blank:

We identified an 853/863 pair when the enumeration was parsed, above. A DRA item record will always be created if the enumeration field is not blank. (Note: no 854/864 or 855/865 pairs are identified during this conversion).

- < If this is a new MFHL record being created:
 - < the 853 field will be added to the MFHL record. Subfield 8 will be constructed as described below.
 - < **QUESTION FOR DRA: What indicators will be assigned to the 853? Is any specific functionality driven off the indicator values (compression and expansion, in particular)?**
- < If an existing MFHL record is being used, then:
 - < If an existing 853 field matches this item, then it will be used. Otherwise, a new field will be added. Subfield 8 will be constructed as described below.
 - < If the existing MFHL MARC record type is "x":
 - < Change the MARC record type to "v".
 - < Change leader byte 17 (encoding level) to "5".
 - < Change 008 byte 06 to "0".
 - < Change 008 byte 16 to "0".
 - < The 863 field for this item will be added when the item is created.
 - < At this point, assign a copy number for this item, as described below.
 - < Compare the copy number for this item with the number of copies field in the 008 field (bytes 17-19). If the value of this copy number is greater than the number in the 008, then increase the number in the 008 field to

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this number. (Note: the 008 field is set to the highest copy number assigned to any attached item.)

Assigning Link And Sequence Number:

The link number which is assigned to the 853 field selected above will be the link number used for this item.

A unique sequence number will be assigned to each item which is connected to the same 853 field (same link number). If the MFHL record type is x, then 853/863 fields are not used, and no sequence number will be assigned.

Items (863 fields) which are assigned the same linking number will be sorted based on the content of the enumeration subfields. If the MFHL record is type v, then the items will be sorted in ascending order (vol. 1, vol. 2, vol. 3, vol. 8, vol. 12), so that the lowest volumes appear first. If the MFHL record is type y, then the items will be sorted in descending order, so that the most recent serial issues appear first (vol. 12, vol. 9, vol. 3). The sorting will reflect the content of field 863 subfields **a and i**.

If the MFHL record is type v, then the sequence numbers will be assigned in ascending order, starting at 10 and incrementing each sequence number by 10 (use 10, 20, 30, 40, 50, ...). If the MFHL record is type y, then the sequence numbers will be assigned in ascending order, starting at 5000 and incrementing each sequence number by 2 (use 5000, 5002, 5004, 5006, ...). Note that assigning these numbers in ascending order to volume fields sorted in descending order will result in items sorted in descending order. For example, if item volume fields are "1978", "1979", and "1980", they will be assigned sequence numbers as follows: 1980: seq:5000, 1979:seq:5002, 1978:seq:5004.

Assigning Link Number to New 853 Field:

Link numbers are used in MFHL both to sequence displays and to connect fields which need to be connected. For example, a serial may be published in volumes for a while, and then may switch to year/month designations. Since the captions are stored in a captions field (853), while the individual items are stored in 863 fields, MFHL must provide a mechanism to link the related fields together. The link number is used for this.

Displays are arranged so that all lines in the record which bear the same link number will display together. The groups of fields are arranged by the value of the link number. In the DRA system, you may use link numbers up to 32,000.

While users may wish to re-arrange the link numbers assigned to MFHL records so that items, indexes, and supplements are arranged differently for a particular title, during conversion all records will be created following the same rules.

During conversion, all 853 fields will be assigned a link number in the range 1-31,999. They are assigned beginning with 1. As new 853 fields are added to the same MFHL record, they will be assigned the next sequential number for their type.

Subfield 8:

This subfield contains the link number assigned for this field. For example, "\$8 3". Field 853 does not contain a sequence number component in this subfield. This subfield is always positioned first in the field.

Assigning Copy Number:

- < If a DRA Item record is not being created, then skip this step.
- < Get the value of the copy number assigned in the LCS system.
 - < Get the field COPY from the Super-Holding record.
- < Validate this number.

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- < Trim leading and trailing blanks.
- < Remove leading zeros.
- < If the field was all blanks, or all zeros, then the system will assign a copy number.
- < If the field contains any non-numeric characters, create a piece-level public note, containing the characters from the record, preceded with the word "Copy ". Then the system will assign a copy number.
- < Determine if the LCS copy number has already been used for another item:
 - < If this item is assigned an 852 field, then check the item file to determine if there is any other item which has been assigned to the same MFHL record and given the same copy number. If so, then create a piece-level public note, containing the number from the LCS record, preceded with the word "Copy ". Then the system will assign a copy number.
 - < If this item is assigned to an 863 field, then check the item file to determine if there is any other item which has been assigned to the same MFHL record AND has the same tag number (863) AND has the same values for its full enumeration (subfields a and i), AND has the same copy number. If so, then create a piece-level public note, containing the number from the LCS record, preceded with the word "Copy ". Then the system will assign a copy number.
 - < If this copy number has not previously been used, then use it. Note: The DRA system contains a limit that the copy number must be less than 32000, but since the LCS system is limited to a 3-character field, this will not need to be checked.
- < If the system must assign a number, either because there is no LCS copy number, or because the LCS number is invalid, or because the LCS number has been used, then check the item file to identify the lowest number which has not already been used for an item on this MFHL record. Assign copy number 1 unless it has been used. Write a message to the log.
 - < If this item is assigned an 852 field, then look for the lowest number which has not been assigned to any item.
 - < If this item is assigned to an 863 field, then look for the lowest number which has not been assigned to an item which has the exact same tag number and enumeration.

WARNING: Copy number assignment:

If the library has multiple copies with and without copy numbers at the same location, then copy numbers may be assigned in a less-than-optimal manner. For example, if the library has copies blank, blank, 4, 2, and 3, then the system will assign these copy numbers 1, 2, 4, 3, 5. When processing the second copy, the program will not identify that an as-yet-unprocessed item wants to use copy number 2, so it will assign it to the second blank item. If the library anticipates that this may be a problem, then please contact Data Research to determine work-arounds. For example, it may be possible for LCS to extract items in an order so that those super-holding records which DO have copy numbers will be processed before any that do not.

Holding level Notes:

If a Holdings level note (852\$x, 852\$z) is to be added, check the MFHL record to determine if it already contains a note in the same subfield of field 852 with identical text. If so, then skip this note; do not add it again. Otherwise, add it to the record in the current

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852 field. If the MFHL record already includes a different 852\$x or 852\$z note, then add this repeatable subfield to the end of the same field.

If a second holdings level note is also to be added, then follow the same procedure.

Summary Holdings notes:

If one or more summary holdings notes are to be added, then for each note:

- < Use field 866.
- < Subfield 8 will contain the linking number of "0". There is no sequence number.

QUESTION FOR DRA: Was it determined that if the subfield 8 is set to zero, that in both IG and Web2, the 866 note AND the 853/863 specific enumeration will both display? This is what we want to have happen; in a previous conference call, DRA said they would go back and check on this matter, but I don't think we ever specifically discussed this again. Since the text of this part of the spec never changed, we want to be sure that if we set this value to zero, both PAC displays will include both the 853/863 data and the 866 information.

- < Subfield a will contain the text of the note.
- < If the record already contains another field 866, then this note will be contained in a new occurrence of the field, and will not be added to the existing field.
- < A DRA item record will never be created for this Super-Holding record:
If the note is a summary note (866\$a), then check the MFHL record to determine if it already contains a note of the same type with identical text. If so, then skip the note; do not add it again. Otherwise, add it to the record.

Validate record:

Check the length of the 852 field. If it exceeds 9,999 characters in length, then truncate the field by deleting characters from the end of the final subfield, until the length is reduced to 9,999 characters or less. If all characters in the subfield are deleted, then delete the subfield, and continue with the next subfield. If it is necessary to truncate a field, then write a message to the program log including the complete text of the field before truncation.

In this conversion, no other field will be created which may exceed this length.

In the DRA system, MARC records are limited in length to 32,220 characters. If the addition of the various note and ILCSO fields would cause the record to exceed this length, then they will be truncated as necessary. A message will be written to the program log. The record will be updated with such additional information as may be added.

Note: Since item-specific fields are stored in the individual item records and not in the MFHL record, only extremely numerous 866 fields would likely cause the record to exceed this limit.

Write the record:

Write the MFHL record to the database, as appropriate. This may either be an update or a new record being created. Note that we will attach the item to this MFHL control number in the normal way.

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Add Information To DRA Item Record:

If we are not creating an item for this Super-Holdings record, then this step will be skipped. Values will be set for each appropriate field, and the record will be saved.

Previously-defined fields:

< Values for the following fields have been determined above.

ID	Use value for BARCODE
HOLD_AGCY	Use value for LOCATION
LAST_AGCY	Use value for LOCATION
NEXT_AGCY	Use value for LOCATION
OWNER_AGCY	Use value for LOCATION
PERM_AGCY	Use value for LOCATION
MAT_CODE	Use value for MATERIAL CODE
LEVEL	Use value for READINGLEVEL

< The item status field should have the following values set or clear, as determined from the location and material code table:

Local Request
Missing
Non-Circulating
Non-Request
Withdrawn

The status of NOTE should be set if a circulation note (INOMST) was created for this Super-Holding record.

Default values:

< For all records, the following fields should be initialized to NULL.

BORROW_DATE
DUE_DATE
DUE_HOUR
LOAN_IN
LOAN_OUT
NOTICE_FLAG
PATRON
RENEW_LIMIT
RENEW
TRANS_MTD
PRICE
STAT_CAT1
STAT_CAT2

< For all records, the following field should be initialized to BLANK.

LOAN_PERIOD

< For all records, the following fields should be set to the current system date.

STATUS_DATE
TRANS_DATE

< For all records, the following fields should be set to the dates specified by the user on program startup.

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INVENTORY_DATE
SHELF_DATE

- < The following fields are not stored in the record until used. They are not set in this conversion for any record.

CARREL_CHK_PCNM
CARREL_MTD_TRANS
CARREL_RSP_PCNM
CARREL_YTD_TRANS
LAST_RECALL_NOTICE
LL_ITEM_ID
ORG_DBCNM
RECALL_DATE
RETURN_DATE
RETURN_HOUR
SAVE_DUE_DATE

Additional item fields:

- < In the Super-Holding record, evaluate the value in the Total Circ Count field. If this value is blank, or if it contains any non-numeric characters, use the value of zero. Otherwise, put this value into the TRANS historical transactions field of the item record.

MFHL Piece Fields:

- < Piece-level information has been determined above for the following fields:
 - < Field tag (852/863)
 - < Copy number
 - < Link and sequence number (subfield 8)
 - < Enumeration (subfields **a** and **i**)

These fields will be appropriately set in the item record, if they have not already been.

WARNING: Non-Public Notes:

The library should be aware that while non-public notes are not included in most public displays, it IS possible for the public to obtain MARC record displays which do include the note. Therefore, the library should not place information which is highly sensitive or confidential in a non-public note field.

Validate record:

Check the length of the record after appending all piece-level note fields. If it exceeds 1,500 characters in length, then truncate the field by deleting characters from the end of the final subfield, until the length is reduced to 1,500 characters or less. If all characters in the subfield are deleted, then delete the subfield, and continue with the next subfield.

It is strongly felt that no record could exceed the length of 1,500 in this conversion, so this number was chosen. The total maximum size of the DRA item mini-MARC portion of the item is 2,048 characters. However, some space is needed for circulation-related information, such as recall, library loan, and last discharge data. So the smaller maximum was selected.

Write the record:

Write the item record to the item file.

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Create LCS/Barcode Cross-Reference Record:

The LCS/Barcode Cross Reference file will be used to link circulation data back to the created DRA item record during transaction conversion.

The transactions file contains the LCS fields Campus, Title number, Volume, Copy, and Ser/Mset sequence number. The DRA item file contains the DRA barcode which was assigned or created during this holdings conversion.

- < If a DRA item is not being created, then skip this step.
- < Initialize a new LCS/Barcode Cross-Reference record.
- < Copy the five fields specified (Campus, Title number, Volume, Copy, and Ser/Mset sequence number) from the Super-Holding record to the new cross-reference record.
- < Copy the 17-character barcode (Item_Id) field from the DRA item record to the new cross-reference record.
- < Write the new fixed-length cross-reference record to the sequential output file.

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Implications Of Using Holding Or Item Fields

DRA provides the ability to store information in field 852 on either a holding level, which applies to all items attached to a given MFHL record, or at the item level, which applies to only a single item.

Some information is always stored at one of these levels.

For example, the location, agency, and call number are stored at the holding level, while the barcode, copy number, and enumeration are always stored at the item level.

Other information, especially notes, may be stored at either level, depending on what is appropriate for a particular note.

DRA accomplishes this by using multiple 852 fields, and using 863, 864, and 865 fields. If displayed in the Netcat program, one of the 852 fields will be displayed normally, while others will display preceded by the capital letter "I".

While most staff and public displays provide the user with the appearance that all of these fields are stored in the same place, they really are not. The holding-level 852 field is physically stored in the MARC MFHL record, together with the 853, 854, and 855 fields. However, the item-level 852 fields and all 863, 864, and 865 fields are physically stored in the appropriate item record. These fields are merged with the content of the MFHL record only for displays, editing, and output.

This difference in storage has various implications which should be considered during conversion. Please note that information described concerning the item-level 852 field will apply equally to fields 863, 864, and 865.

Indexing:

- < Information in the holding-level 852 field may be indexed in the MARC database. This permits call number searching based on the MFHL record. This permits keyword access to public notes. If formulated appropriately, this permits numeric access to the non-public note field, using either the reference number index or other index as appropriate.
- < Information in the item-level 852 field may not be indexed. This means that item-level notes such as accession numbers may not be directly searched, though they will be displayed when the record is retrieved through other means.

Report Writer:

- < Information in the holding-level 852 field may be retrieved with the Data Research Report Writer module, as a part of the MFHL record from the MARION record description.
- < Information in the item-level 852 field may be retrieved with the Data Research Report Writer module, as a part of the item record from the ITMMST record description.
- < Data Research has provided several transparent connections for use from the ITMMST record to retrieve selected information from the MFHL record. This includes call number and bibliographic (004) control number. Additionally, the volume field has been defined to transparently retrieve and merge the full enumeration statement from both the captions stored in the MARC record and the data stored in the item record. For additional information, links or joins may be used.
- < There are no such transparent connections available from the MARION record to access information physically stored in the item record. Users may establish links or joins in their report to access this information, however.

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Supervisory Catalog:

Supervisory_Catalog does not access holdings information. As such, it provides a lower, more raw look at the data contained in the MARC record. Thus it does not include the item-level fields in its displays.

Maintenance activities:

Maintenance programs which operate on MARC records to accomplish tasks such as renaming subfields, deleting fields, or reporting values work off the MARC record, and so may not be used to access or modify information in the item record. Alternate programs must be used.

Some sites have found it appropriate to selectively place item-level information directly into the MFHL record by using 9XX fields.

Data Research recommends that customers consider the design implications of their choice as data is converted into the MFHL system. If you have questions concerning this, please contact Data Research.

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RELATED TABLES

ILCSO Tables:

ILCSO will provide four tables for each library, which will be used in processing the holdings for that library. ILCSO will also provide a separate holdings file for each library, so the appropriate table will be specified in the com file for processing that library's holdings.

Each of the tables will be pre-processed to slightly reformat or enhance the table, as described below. While they arrive from ILCSO in EXCEL, they will be converted to fixed-length text files when transferred to the VMS system.

Tables and field lengths are:

NOTES TABLE:

COL	FIELD	POS
A	Library	1-2
B	Type (L/U)	3-3
C	Access (P/S)	4-4
D	Level (T/SU)	5-6
E	Text	7-36
F	Volume	37-42
G	Call#	43-48
H	LCS Location match	49-51

LOCATION/MATERIAL CODES TABLE:

COL	FIELD	POS
A	Library	1-2
B	Location	3-5
C	Loan Per	6-10
D	Call num start	11-25
E	(removed)	
F	(removed)	
G	Agency	26-31
H	Mat Code (numeric)	32-34
I	No-Request (Y/N)	35-35
J	Reading Level (A/J/Y)	36-36
K	Flag	37-37
L	Non-Circ Status	38-38
M	Local Request Status	39-39

LIBRARY USE ID TABLE:

COL	FIELD	POS
A	Library	1-2
B	Lib Use ID	3-11
C	Agency	12-17

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CALL NUMBER PARSE PREFIX TABLE:

COL	FIELD	POS
A	Library	1-2
B	Prefix	3-22
C	Classification	23-27
D	Indexed (Y/N)	28-28

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Preprocessing Of ILCSO Tables:

Preprocessing of Notes table:

- < Strip header.
- < Protect sequencing of entries.
- < Create TWO separate notes tables, each with the same structure as the original. The first table, the NOTES-LCCN TABLE, will contain all records in the original table which contained a value of "L" in column B. The second table, NOTES-UID TABLE, will contain all records in the original table which contained a value of "U" in column B. No other records should exist in the table.
- < Verify that the content of all columns is all upper-case.

Preprocessing Of Call Number Prefix Table:

- < Strip header.
- < Up-case all contents.
- < Move the top lines, which indicate the types of call numbers supported, to the bottom. Convert these lines to be prefix: none and call number type: xxx (& xxx & xxx).
- < Protect sequencing of entries.
- < Ensure standard values in column C. If multiple call number types, then ensure standard sequence and format of list (spacing, capitalization, etc.). Recommend converting to a string of one character per type, such as "DL" for "Dewey & LC". Use codes D:Dewey, H:Homegrown/Local, L:LC, N:NLM, S:SuDocs.
- < Validate that column D is either Y or N.

Preprocessing Of Location And Material Code Table:

- < Strip header
- < Protect the sequencing of entries.
- < Remove columns E and F
- < Validate column G as 6-digit, numeric text.
- < Convert column H from text to three-digit numeric, zero-filled, based on material code translation table.
- < Validate Column I as "Y" or "N"
- < Validate column J as "A", "Y", or "J"
- < Validate column K as "M", "W", or blank.
- < Add column for non-circ status (Y/N), based on material code value
- < Add column for Local Request (Y/N), based on material code value.
- < Add default " * " rows, as appropriate.

Preprocessing Of Library Use ID Table:

- < Strip header.
- < Protect sequencing of entries.
- < Validate that column C is a six-digit numeric value.

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Fields in Super-Holding record:

<u>Field</u>	<u>Pos</u>	<u>Description</u>	<u>Pad</u>
Campus	1-2	Used to determine location.	None
Title number	3-9	Used to link circulation data. This value is not unique between campuses. We will include this value in the LCS/Barcode cross-reference file.	Zero
Call number	10-59	Parse into subfields. Use prefix table to determine prefixes. Note: NO SPACES in call number.	Space
Ser/Per/Mset	60-62	Not used. Discard value.	None
LCCN field	63-242	Either contains LCCN or note. If LCCN, then discard data. If note, then process it per note process.	Space
Loan period	243-247	Used in table for location and material codes.	None
Location	248-250	Used in table for location and material codes. If blank, and if copy, volume, and loan period are also all blank, then create a MFHL record, but do not create an item.	None
Volume	251-253	If not blank, then remove leading zeros and put into volume field of the item.	Zero
Copy	254-256	If not blank, then remove leading zeros and store as the copy number. If invalid, assign a new value and report in the log file. Otherwise, process as described.	Zero
Holding type code	257-257	Used to identify item record needed(y/n) and notes fields. Either C, S, B, or blank. S then no item, else there is. After use, discard this data.	None
Unique ID	258-513	May be holdings statement, may be a note, or may be "identification of the item". If holdings statement, then put into MFHL record as holdings statement. If note, then put into MFHL record as note.	Space
Ser/Mset	514-519	Add to the LCS/Barcode cross reference file	None
Library use id	520-528	Used with the Library Use ID table to determine location.	None
Date due	529-534	Will not be used.	None
Bib Unit hi field.	535-539	Will not be used.	Zero
Bib Unit low field.	540-	May be used in parsing enumeration, as	Zero

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	544	specified.	
Year hi field	545-548	May be used in parsing enumeration, as specified.	None
Year low field	549-552	May be used in parsing enumeration, as specified.	None
Total circ count	553-556	Place value in the item record. If no item record is created, it will be ignored. If not digits or spaces, report error to log and use value of zero. If spaces, use value of zero.	None
Barcode	557-570	If non-blank, then use as item barcode. Validate format and check-digit. If invalid, put into item record anyway, but write error message to log.	Space
RID	571-690	LCS titles to which this holding is attached. This field contains a list of up to ten RIDs. Each is 12 characters long.	None

PAD:

- < **None:** Use, compare, or ignore the value in the field without modification, at the exact length specified for this field.
- < **Zero:** Remove leading zeros when inserting this field into a DRA record. Some fields with zero-padding will be all-blank when not used.
- < **Space:** Remove trailing spaces when inserting this field into a DRA record.

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Fields In The DRA Item Record:

#	FIELD	WHAT? HOW SET?	TYPE	FROM
1	CALL_NBR	Will be parsed, together with the enumeration and copy information. Information stored in the DRA call number will determine whether like items appear on the same MFHL record. Contains some of the following: un-indexed prefix, indexed prefix, class number, and shelf cutter. Parse will separate into subfields. Prefixes based on individual library site table. Parse also sets indicator value for class type.	Item Ident	ILCSO DATA
2	COPY	Must be a unique numeric value. Numbers may be skipped, System will set a copy number unless incoming data over-rides.	Item Ident	ILCSO DATA OR COMPUTE
3	DBCNM	Database control number for MFHL record. Will be computed during item creation.	Item Ident	COMPUTE
4	ID	Barcode number or other unique code. Required for item records. Validate check digit. If not validated, create record but report to log. The system may generate new barcodes, starting with "8888".	Item Ident	ILCSO DATA OR COMPUTE
5	LABEL	Captions for enumeration	Item Ident	ILCSO DATA
6	LINK	Computed during MFHL/item creation	Item Ident	COMPUTE
7	SEQN	The sequence in which this item should appear in MFHL displays. Will be set sequentially during holdings conversion .	Item Ident	COMPUTE
8	TITLE	Title DBCN to which item is linked. The DBCN of the PRIMARY title will be used when the holding is linked to multiple bibliographic records. NOT STORED IN RECORD.	Item Ident	BASED ON ILCSO DATA
9	VOLUME	Full enumeration information, including captions, will be parsed and loaded via MFHL. Leading zeros will be removed.	Item Ident	ILCSO DATA

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10	HOLD _AGCY	Indicates location where item is currently shelved when not in use. Same as PERM LOC, unless item is library loaned. It will be set to same as PERM_LOC during conversion.	Agency	ILCSO TABLE
11	LAST _AGCY	6-digit agency code. It will be set to same as PERM_LOC during conversion. Used to control items en-route to other locations.	Agency	ILCSO TABLE
12	NEXT _AGCY	6-digit agency code. It will be set to same as PERM_LOC during conversion. Used to control items en-route to other locations.	Agency	ILCSO TABLE
13	OWNER _AGCY	6-digit agency code. It will be set to same as PERM_LOC during conversion. It reflects the legal owning entity.	Agency	ILCSO TABLE
14	PERM _AGCY	6-digit agency code. Set by table	Agency	ILCSO TABLE

15	LEVEL	"A" for adult, "J" for juvenile, or "Y" for young adult.	Descrip	ILCSO TABLE
16	MAT_CODE	From ILCSO table	Descrip	ILCSO TABLE
17	NONPUB _NOTE	Non-public item-specific note	Descrip	ILCSO DATA
18	NOTE	Public note item-specific note	Descrip	ILCSO DATA
19	PRICE	This price will be used to charge patrons for lost books, and to limit patron borrowing based on the total value of all items currently checked out. If set to zero, then the policy file value will be used instead. Set to zero during ILCSO item creation.	Descrip	NULL
20	STAT_CAT1	Statistical field available. Could be based on ILCSO table. Values 1-255. Set to zero if unused.	Descrip	NULL
21	STAT_CAT2	Statistical field available. Could be based on ILCSO table. Values 1-255. Set to zero if unused.	Descrip	NULL
22	STATUS	Item status. Set based on ILCSO table.	Descrip	ILCSO TABLE
23	TRANS	Historical transactions counter. Initialize to ILCSO total circ count.	Descrip	ILCSO DATA
24	TRANS_MTD	Transactions month-to-date. Initialized to zero during conversion.	Descrip	NULL

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25	INVENTORY _DATE	Date item was inventoried. Since information is not available, a default date will be used. ILCSO will indicate date, probably 5/1/1998	Date	Will be set to May 1, 1998
26	SHELF_DATE	Date item was last found on shelf during physical inventory. Since information is not available, a default date will be used. ILCSO will indicate date, probably 5/1/1998	Date	Will be set to May 1, 1998
27	STATUS _DATE	Date the item's status last changed. Set to "TODAY" during item creation.	Date	TODAY
28	TRANS_DATE	Date of last transaction. Will be set to "TODAY" during item creation.	Date	TODAY

29	LOAN _PERIOD	Default loan period for this item. If set, then it over-rides the policy file and applies to all classes of users. If not set, then policy file determines loan period. Not set during conversion.	Circ Info	BLANK
30	RENEW _LIMIT	Number of times this item may be renewed by same patron, subject to renewals, etc. This value over-rides policy file defaults and applies to ALL users, regardless of patron class. If set to zero, then the policy default will be used. Will be set to zero during item creation.	Circ Info	NULL

31	BORROW _DATE	Date patron checked out the item. Not set during item creation. Later, may be set during transaction processing.	Charge Info	NULL
32	DUE_DATE	Date item is due back. Not set during item creation.	Charge Info	NULL
33	DUE_HOUR	Time of day item is due back. Set to 23:59 for full-day loans. Not set during item creation.	Charge Info	NULL
34	LAST _RECALL _NOTICE	Date the patron was last sent a notice for the recall of this item. If item is not recalled, then set to zero. Always set to zero during item creation, but may be updated during transaction processing.	Charge Info	MISS
35	NOTICE _FLAG	Indicates overdue notices sent to patron. Set to zero for all items during item creation. May be updated during transaction conversion.	Charge Info	NULL
36	PATRON	Patron who has item currently charged. Set to none during item creation. Will be updated as appropriate when converting transactions.	Charge Info	NULL
37	RECALL _DATE	Date item was recalled. If item is not recalled, then set to zero. Always set to zero during item creation, but may be updated during transaction processing.	Charge Info	MISS
38	RENEW	Number of times current patron has already renewed book. Not set during item creation.	Charge Info	NULL

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39	RETURN_DATE	Date item was last discharged. Used in generating shelving message. Not set for any items during item creation.	Charge Info	MISS
40	RETURN_HOUR	Hour item was last discharged. Used in generating shelving message. Not set for any items during item creation.	Charge Info	MISS
41	SAVE_DUE_DATE	The original due date, for recalled items. If item is not recalled, then set to zero. Always set to zero during item creation, but may be updated during transaction processing.	Charge Info	MISS

42	LL_ITEM_ID	Temporary identifier for permanent MFHL record location of library loan items. Computed internally as needed.	Library Loan	MISS
43	LOAN_IN	Date item's library-loan expires. No items will be set to library loan during item creation. May be set later during transaction processing, if appropriate.	Library Loan	NULL
44	LOAN_OUT	Date item was library loaned. No items will be set to library loan during item creation. May be set later during transaction processing, if appropriate.	Library Loan	NULL
45	ORG_DBCNM	Control number of MFHL record for the original record to which the item was attached, if the item is temporarily library-loaned. Used so item can be returned to same MFHL record after the library loan is finished. Computed internally as needed.	Library Loan	MISS

46	CARREL_CHK_PCNM	Used in carrel charges of item. Not set during item creation. Could be set during transaction processing, if carrel charges are loaded.	Carrel Info	MISS
47	CARREL_MTD_TRANS	Month-to-date statistics for carrel charges of item. Set to zero during item creation.	Carrel Info	MISS
48	CARREL_RSP_PCNM	Used in carrel charges of item. Not set during item creation. Could be set during transaction processing, if carrel charges are loaded.	Carrel Info	MISS
49	CARREL_YTD_TRANS	Year-to-date statistics for carrel charges of item. Set to zero during item creation.	Carrel Info	MISS

50	LTAG	Internal MFHL tag number for this barcoded item. For example, 863.	Internal	COMPUTE
51	RFA	Internal value NOT STORED	Internal	COMPUTE

Note: fields which are listed as MISS are not physically stored in the record unless used.

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DRA Item Statuses:

The following statuses are available. Some circulation statuses may be set during the transaction processing or the initial run of the OLN (overdue and lost notice extraction) process.

<u>STATUS</u>	<u>MEANS</u>	<u>SET IN CONVERSION?</u>
Local_Request	Item will ONLY fill requests at its home library, not elsewhere.	Based on enhanced loc & mat code table
Missing	Item can't be found	Based on loc & mat code table
Non_Circulating	Will not permit circulation to anyone without staff over-ride Alternative of setting loan period to zero days permits more detailed control over who may circ it. This status can show in PAC.	Based on enhanced loc & mat code table
Non_Request	Item will not be picked to fill a request	Based on loc & mat code table
Withdrawn	Item intentionally withdrawn	Based on loc & mat code table
Note	There is a CIRC note in the INOMST file for this item.	Based on whether a note is created
Assumed_Lost	Item not returned from patron by due date, plus library defined period.	No
Claims_Lost	Patron says he has lost item	No
Claims_Returned	Patron says he returned, but library has never seen it again.	No
Damaged	Severely damaged item. Never available for request	No
Defer_Request	Used by request system	No
En_Route	Item routing between locations	No
Fine_Exempt	No overdue fines ever, for anyone.	No
Hold	Used by request system	No
Library_Loan	Used for library-loans	No
Mailed	Used by request system	No
Manual_Recall	Item has been recalled	No
Material_Booking	Used by MBK software	No
On_The_Fly_Conv	Item is not connected to a bibliographic record, but it should be when returned.	Set for on-the-fly items
Reserve_Room	Requires related RBR record to exist	No

ILCSO HOLDINGS CONVERSION

Fields in the DRA Item Notes Record:

<u>#</u>	<u>FIELD</u>	<u>WHAT? HOW SET?</u>	<u>FROM</u>
1	ITEM_ID	Item barcode.	DRA ITEM RECORD
2	NOTE_TEXT	Text of circulation note.	ILCSO DATA

Fields in the LCS/Barcode Record:

<u>#</u>	<u>FIELD</u>	<u>WHAT? HOW SET?</u>	<u>FROM</u>
1	ITEM_ID	Item barcode.	DRA ITEM RECORD
2	CAMPUS	Used for linking transaction data	ILCSO DATA
3	TITLE NUMBER	Used for linking transaction data	ILCSO DATA
4	VOLUME	Used for linking transaction data	ILCSO DATA
5	COPY	Used for linking transaction data	ILCSO DATA
6	SER/MSET SEQUENCE NUMBER	Used for linking transaction data	ILCSO DATA

ILCSO HOLDINGS CONVERSION

The Volume Label Table:

The volume label table is used in parsing enumeration information found in the UID **field**. The table permits the library to specify additional labels. It also permits the library to standardize and normalize the labels used. If various issues, volumes, and copies of a title do not have a consistent set of labels, then multiple sets of captions will be set up in the MFHL record, and displays will show these differences. Standardizing these labels permits the system to correctly group the holdings.

ILCSO may wish to modify this table to reflect their holdings.

The first column of the table contains the text of the volume label which appears in the holdings records. The second column contains the standardized, normalized value, to which the holdings statement will be converted. Each value listed in the first column should be unique. However, many lines may standardize to the same value in the second column.

The entries in the first column should be capitalized. The program will match labels regardless of case. However, the case of the second column will be the case actually used in the records, so it should be mixed case as desired.

The entries in the first column should be entered without trailing periods. The program will match labels regardless of whether they are followed by periods or not. Internal spaces and periods ARE required, so multiple lines should be added to the table, as needed, to match all variations of internal spaces and internal periods which appear in the UID data. If you wish to include a trailing period in the standardized data, however, then you must put it into the second column in the exact format needed.

If you do not wish to standardize the labels, then enter the same text in both column a and column b.

If a label is not listed, then the program will treat the label as being unknown. The label "(unit)" will be used, and the unrecognized label, together with the actual piece data, will be put into the volume field.

ILCSO HOLDINGS CONVERSION

ABH	Abh.
ABS	Abs.
ABT	Abt.
ABTH	Abt.
AFL	afl.
AN	an.
APPEND	Appendix
AUFL	Aufl.
AUSG	Ausg.
BAND	Bd.
BD	Bd.
BEITRAGE	Beitrage
BHFT	Bhft.
BK	bk.
CARD	card
D	d.
ED	ed.
F	fasc.
FASC	fasc.
FICHE	fiche
GIL	gil.
GILAYON	gil.
GUIDE	guide
HANDBK	handbk.
HANDBOOK	handbk.
HEFT	Heft
HFT	Heft
HOSAFOT	hosafot
HOV	hov.
HOVERET	hov.
ISSUE	issue
ITEM	item
JAHR	Jahr
JAHRGANG	Jahr.
K.B	krit.Ber.
KRIT.BER	krit.Ber.
KRITISCHE BERICHT	krit.Ber.
LFG	Lfg.
LIVRE	livre
LIVRO	livro
MAFTEAH	mafteah
MAVO	mavo

MIS	mis.
MISPAR	mis.
MUSAF	musaf
N	no.
N.F	n.F.
NO	no.
N.R	n.R.
N.S	n.s.
NEW SER	n.s.
NR	Nr.
NUM	no.
NUMBER	no.
P	pt.
PAR	pt.
PART	pt.
PLATE NOS	Plate Nos.
PP	pp.
PT	pt.
PTIE	pt.
PTS	pt.
REEL	reel
REIHE	Reihe
REVISIONSBERICHT	Revbt.
SDNFT	Sdnft.
SEC	sect.
SECT	sect.
SEITE	Seite
SER	ser.
SESS	sess.
T	t.
TAYL	tl.
TEIL	Teil
TL	tl.
V	v.
VOL	v.
VOLUME	v.
YARG	yarg.
YARGANG	yarg.

The Enumeration Table:

This table is used in parsing the call number field, to identify the appropriate beginning of subfield 'i' in LC, NLM, and Dewey call numbers. A sample appears below. ILCSO may wish to modify this table to reflect their holdings.

Periods will be used to identify enumeration labels, based on the table.

ABT.
ABT
BAND

BD.
BD
F.

ILCSO HOLDINGS CONVERSION

FOLGE
FOLIO
NF
N.F.
NS
N.S.
NEWSER.
NEWSER
NEW.SER.
PART

PT.
PT
SER.
SER
SERIES
V.
VOL.
VOL
VOLUME

ILCSO HOLDINGS CONVERSION

The 007 Field Table:

The MFHL records being created are being created to include an 007 field (physical description fixed field). The standard calls for the presence of an 007 field as appropriate. The first two characters of the 007 are used by the DRA software to display the physical format. ONLY the first two characters are created by the conversion program if the bibliographic record being processed does not have an 007 field to copy into the MFHL record being created. Sites are encouraged to code this field as fully as they are comfortable doing when manually adding new MFHL records after the conversion.

ILCSO may wish to modify this table to reflect their holdings.

The conversion program will first check the bibliographic record for an 007 field. If there is an 007 in the bibliographic record, it will copy the 007 to the MFHL record. If there are more than one bibliographic records attached to this MFHL record, then the 007 field will be taken from the FIRST one listed. If there is no 007 field in the bibliographic record, then the program will use the following table for setting the first two characters of the MFHL 007.

Please note the limitations inherent in this program. A cataloger can code a full 007 based on the full bibliographic record. The program is limiting itself to producing only two 007 positions based on only two pieces of information in the bibliographic record. It is using only a small subset of the values available because of the limitations inherent in the process. Once the program completes, catalogers may manually enhance the 007 field for any MFHL records as desired.

Some sites use the 842 field to add precision to the physical format. These can also be added manually after the conversion.

The 007 field table includes:

- < Record Type code
- < Form of item code (008/23 for Books, Archival and manuscripts control, Music, and Serials)
- < Cartographic material type (008/25 for Maps)
- < Type of material (008/33 for Visual materials)
- < First two characters of the 007 field

A comma is used as a separator between the elements.

All five elements must be entered for each line of the table. An asterisk (*) may be used in elements 2, 3, and 4, to indicate a wildcard match. Lines in the table are processed sequentially, so the sequence of the lines in the table is important.

The program will identify the first line in the table which matches the bibliographic record, based on the first four elements in the table. Once it finds a match, it will use the fifth element to create the 007 field.

ILCSO HOLDINGS CONVERSION

The DRA sample table, FIELD_007_CONVERSION_TABLE.TBL, follows:

e,*,a,*,aj
e,*,b,*,aj
e,*,d,*,dc
g,*,*,f,go
g,*,*,s,gs
g,*,*,t,gt
g,*,*,m,mr
g,*,*,v,vf
k,*,*,a,kz
k,*,*,c,kj
k,*,*,i,ki
k,*,*,l,kl
k,*,*,n,kn
k,*,*,o,ko
k,*,*,z,kz
r,*,*,*,zz
o,*,*,b,zz
i,*,*,*,sz
j,*,*,*,sz
b,a,*,*,hd
b,b,*,*,he
b,c,*,*,hg
b,d,*,*,tb
b,f,*,*,tc
b,r,*,*,ta

b,*,*,*,ta
c,a,*,*,hd
c,b,*,*,he
c,c,*,*,hg
c,d,*,*,tb
c,f,*,*,tc
c,r,*,*,tz
c,*,*,*,tz
d,a,*,*,hd
d,b,*,*,he
d,c,*,*,hg
d,d,*,*,tb
d,f,*,*,tc
d,r,*,*,tz
d,*,*,*,tz
m,*,*,*,zz
a,a,*,*,hd
a,b,*,*,he
a,c,*,*,hg
a,d,*,*,tb
a,f,*,*,tc
a,r,*,*,ta
a,*,*,*,ta

ILCSO HOLDINGS CONVERSION

Call Number Prefix Tables

The call number prefix tables follow. These tables are used to explode the content of the location and material codes spreadsheets. The spreadsheets may contain a single line which is labeled "DOC-PREFIX". This means that if the call number in the record begins with any of the 36 entries listed in the DOC-PREFIX table, then that line of the location and material codes spreadsheet should be used.

Note that sequence of entries in the spreadsheet is important. For example, if the spreadsheet includes an entry for "K", and a later entry for " LC/DOC-PREFIX", which includes an entry for "K", Then the first entry in the spreadsheet will be used.

These tables were provided by ILCSO.

DOC-PREFIX table:

A	DOC-PREFIX
AA	DOC-PREFIX
ED	DOC-PREFIX
EP	DOC-PREFIX
FA	DOC-PREFIX
FCA	DOC-PREFIX
FEM	DOC-PREFIX
FM	DOC-PREFIX
FMC	DOC-PREFIX
FR	DOC-PREFIX
FT	DOC-PREFIX
FTZ	DOC-PREFIX
GP	DOC-PREFIX
GS	DOC-PREFIX
HH	DOC-PREFIX
I	DOC-PREFIX
IA	DOC-PREFIX
IC	DOC-PREFIX
ITC	DOC-PREFIX

JU	DOC-PREFIX
LR	DOC-PREFIX
MS	DOC-PREFIX
NAS	DOC-PREFIX
NCU	DOC-PREFIX
NF	DOC-PREFIX
NMB	DOC-PREFIX
NS	DOC-PREFIX
OP	DOC-PREFIX
PREX	DOC-PREFIX
PRVP	DOC-PREFIX
RR	DOC-PREFIX
SBA	DOC-PREFIX
SE	DOC-PREFIX
SI	DOC-PREFIX
X	DOC-PREFIX
Y	DOC-PREFIX

LC/DOC-PREFIX table:

AC	LC/DOC-PREFIX
AE	LC/DOC-PREFIX
C	LC/DOC-PREFIX
CC	LC/DOC-PREFIX
CR	LC/DOC-PREFIX
D	LC/DOC-PREFIX
E	LC/DOC-PREFIX
GA	LC/DOC-PREFIX
HE	LC/DOC-PREFIX
J	LC/DOC-PREFIX
L	LC/DOC-PREFIX

LC	LC/DOC-PREFIX
NC	LC/DOC-PREFIX
P	LC/DOC-PREFIX
PE	LC/DOC-PREFIX
PM	LC/DOC-PREFIX
PR	LC/DOC-PREFIX
S	LC/DOC-PREFIX
T	LC/DOC-PREFIX
TD	LC/DOC-PREFIX
VA	LC/DOC-PREFIX

NO-PREFIX table:

0	NO-PREFIX
1	NO-PREFIX
2	NO-PREFIX
3	NO-PREFIX

4	NO-PREFIX
5	NO-PREFIX
6	NO-PREFIX
7	NO-PREFIX

ILCSO HOLDINGS CONVERSION

8	NO-PREFIX
---	-----------

9	NO-PREFIX
---	-----------

LC-PREFIX table:

AG	LC-PREFIX
AI	LC-PREFIX
AM	LC-PREFIX
AN	LC-PREFIX
AP	LC-PREFIX
AS	LC-PREFIX
AY	LC-PREFIX
AZ	LC-PREFIX
B	LC-PREFIX
BC	LC-PREFIX
BD	LC-PREFIX
BF	LC-PREFIX
BH	LC-PREFIX
BJ	LC-PREFIX
BL	LC-PREFIX
BM	LC-PREFIX
BP	LC-PREFIX
BQ	LC-PREFIX
BR	LC-PREFIX
BS	LC-PREFIX
BT	LC-PREFIX
BV	LC-PREFIX
BX	LC-PREFIX
CB	LC-PREFIX
CD	LC-PREFIX
CE	LC-PREFIX
CJ	LC-PREFIX
CN	LC-PREFIX
CS	LC-PREFIX
CT	LC-PREFIX
DA	LC-PREFIX
DAW	LC-PREFIX
DB	LC-PREFIX
DC	LC-PREFIX
DD	LC-PREFIX
DE	LC-PREFIX
DF	LC-PREFIX
DG	LC-PREFIX
DH	LC-PREFIX
DJ	LC-PREFIX
DJK	LC-PREFIX
DK	LC-PREFIX
DL	LC-PREFIX
DP	LC-PREFIX
DQ	LC-PREFIX
DR	LC-PREFIX
DS	LC-PREFIX
DT	LC-PREFIX
DU	LC-PREFIX
DX	LC-PREFIX

F	LC-PREFIX
G	LC-PREFIX
GB	LC-PREFIX
GC	LC-PREFIX
GE	LC-PREFIX
GF	LC-PREFIX
GN	LC-PREFIX
GR	LC-PREFIX
GT	LC-PREFIX
GV	LC-PREFIX
H	LC-PREFIX
HA	LC-PREFIX
HB	LC-PREFIX
HC	LC-PREFIX
HD	LC-PREFIX
HF	LC-PREFIX
HG	LC-PREFIX
HJ	LC-PREFIX
HM	LC-PREFIX
HN	LC-PREFIX
HQ	LC-PREFIX
HS	LC-PREFIX
HT	LC-PREFIX
HV	LC-PREFIX
HX	LC-PREFIX
JA	LC-PREFIX
JC	LC-PREFIX
JF	LC-PREFIX
JK	LC-PREFIX
JL	LC-PREFIX
JN	LC-PREFIX
JQ	LC-PREFIX
JS	LC-PREFIX
JV	LC-PREFIX
JX	LC-PREFIX
K	LC-PREFIX
KD	LC-PREFIX
KDC	LC-PREFIX
KDE	LC-PREFIX
KDG	LC-PREFIX
KDK	LC-PREFIX
KDZ	LC-PREFIX
KE	LC-PREFIX
KEA	LC-PREFIX
KEB	LC-PREFIX
KEM	LC-PREFIX
KEN	LC-PREFIX
KEO	LC-PREFIX
KEP	LC-PREFIX
KEQ	LC-PREFIX

ILCSO HOLDINGS CONVERSION

KES	LC-PREFIX
KEY	LC-PREFIX
KEZ	LC-PREFIX
KF	LC-PREFIX
KFA	LC-PREFIX
KFC	LC-PREFIX
KFD	LC-PREFIX
KFF	LC-PREFIX
KFG	LC-PREFIX
KFH	LC-PREFIX
KFI	LC-PREFIX
KFK	LC-PREFIX
KFL	LC-PREFIX
KFM	LC-PREFIX
KFN	LC-PREFIX
KFO	LC-PREFIX
KFP	LC-PREFIX
KFR	LC-PREFIX
KFS	LC-PREFIX
KFT	LC-PREFIX
KFU	LC-PREFIX
KFV	LC-PREFIX
KFW	LC-PREFIX
KFX	LC-PREFIX
KFZ	LC-PREFIX
KG	LC-PREFIX
KGA	LC-PREFIX
KGB	LC-PREFIX
KGC	LC-PREFIX
KGD	LC-PREFIX
KGE	LC-PREFIX
KGF	LC-PREFIX
KGG	LC-PREFIX
KGH	LC-PREFIX
KGJ	LC-PREFIX
KGK	LC-PREFIX
KGL	LC-PREFIX
KGM	LC-PREFIX
KGN	LC-PREFIX
KGP	LC-PREFIX
KGQ	LC-PREFIX
KGR	LC-PREFIX
KGS	LC-PREFIX
KGT	LC-PREFIX
KGU	LC-PREFIX
KGV	LC-PREFIX
KGW	LC-PREFIX
KGX	LC-PREFIX
KGY	LC-PREFIX
KGZ	LC-PREFIX
KH	LC-PREFIX
KHA	LC-PREFIX
KHC	LC-PREFIX

KHD	LC-PREFIX
KHF	LC-PREFIX
KHH	LC-PREFIX
KHK	LC-PREFIX
KHL	LC-PREFIX
KHM	LC-PREFIX
KHN	LC-PREFIX
KHP	LC-PREFIX
KHQ	LC-PREFIX
KHS	LC-PREFIX
KHU	LC-PREFIX
KHW	LC-PREFIX
KJ	LC-PREFIX
KJA	LC-PREFIX
KJC	LC-PREFIX
KJE	LC-PREFIX
KJG	LC-PREFIX
KJH	LC-PREFIX
KJJ	LC-PREFIX
KJK	LC-PREFIX
KJM	LC-PREFIX
KJN	LC-PREFIX
KJP	LC-PREFIX
KJR	LC-PREFIX
KJT	LC-PREFIX
KJV	LC-PREFIX
KJW	LC-PREFIX
KK	LC-PREFIX
KKA	LC-PREFIX
KKB	LC-PREFIX
KKC	LC-PREFIX
KKE	LC-PREFIX
KKF	LC-PREFIX
KKG	LC-PREFIX
KKH	LC-PREFIX
KKJ	LC-PREFIX
KKK	LC-PREFIX
KKL	LC-PREFIX
KKM	LC-PREFIX
KKN	LC-PREFIX
KKP	LC-PREFIX
KKQ	LC-PREFIX
KKR	LC-PREFIX
KKS	LC-PREFIX
KKT	LC-PREFIX
KKW	LC-PREFIX
KKX	LC-PREFIX
KKY	LC-PREFIX
KKZ	LC-PREFIX
LA	LC-PREFIX
LB	LC-PREFIX
LD	LC-PREFIX
LE	LC-PREFIX

ILCSO HOLDINGS CONVERSION

LF	LC-PREFIX
LG	LC-PREFIX
LH	LC-PREFIX
LJ	LC-PREFIX
LT	LC-PREFIX
M	LC-PREFIX
ML	LC-PREFIX
MT	LC-PREFIX
N	LC-PREFIX
NA	LC-PREFIX
NB	LC-PREFIX
ND	LC-PREFIX
NE	LC-PREFIX
NK	LC-PREFIX
NX	LC-PREFIX
PA	LC-PREFIX
PB	LC-PREFIX
PC	LC-PREFIX
PD	LC-PREFIX
PF	LC-PREFIX
PG	LC-PREFIX
PH	LC-PREFIX
PJ	LC-PREFIX
PK	LC-PREFIX
PL	LC-PREFIX
PN	LC-PREFIX
PQ	LC-PREFIX
PS	LC-PREFIX
PT	LC-PREFIX
PZ	LC-PREFIX
Q	LC-PREFIX
QA	LC-PREFIX
QB	LC-PREFIX
QC	LC-PREFIX
QD	LC-PREFIX
QE	LC-PREFIX
QH	LC-PREFIX
QK	LC-PREFIX
QL	LC-PREFIX
QM	LC-PREFIX
QP	LC-PREFIX
QR	LC-PREFIX
R	LC-PREFIX
RA	LC-PREFIX
RB	LC-PREFIX
RC	LC-PREFIX
RD	LC-PREFIX
RE	LC-PREFIX
RF	LC-PREFIX
RG	LC-PREFIX
RJ	LC-PREFIX

RK	LC-PREFIX
RL	LC-PREFIX
RM	LC-PREFIX
RS	LC-PREFIX
RT	LC-PREFIX
RV	LC-PREFIX
RX	LC-PREFIX
RZ	LC-PREFIX
SB	LC-PREFIX
SD	LC-PREFIX
SF	LC-PREFIX
SH	LC-PREFIX
SK	LC-PREFIX
TA	LC-PREFIX
TC	LC-PREFIX
TE	LC-PREFIX
TF	LC-PREFIX
TG	LC-PREFIX
TH	LC-PREFIX
TJ	LC-PREFIX
TK	LC-PREFIX
TL	LC-PREFIX
TN	LC-PREFIX
TP	LC-PREFIX
TR	LC-PREFIX
TS	LC-PREFIX
TT	LC-PREFIX
TX	LC-PREFIX
U	LC-PREFIX
UA	LC-PREFIX
UB	LC-PREFIX
UC	LC-PREFIX
UD	LC-PREFIX
UE	LC-PREFIX
UF	LC-PREFIX
UG	LC-PREFIX
UH	LC-PREFIX
V	LC-PREFIX
VB	LC-PREFIX
VC	LC-PREFIX
VD	LC-PREFIX
VE	LC-PREFIX
VF	LC-PREFIX
VG	LC-PREFIX
VK	LC-PREFIX
VM	LC-PREFIX
Z	LC-PREFIX