

**Voyager Data Conversion Information for
New I-Share Libraries**

Revised January 2016

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Introduction

Welcome to I-Share!

This document is based on Voyager system requirements and I-Share consortial practices and policies. This document should be used to supplement to:

- the Ex Libris “Item Level Data Migration Questionnaire for Concise Voyager Migration” (DMQ) that each new I-Share library must submit to Ex Libris as part of the data conversion process necessary for the “bib load.
- the Ex Libris Standard Interface Formats (SIFs) used to convert Authority records, Holdings records, Item records, Patron records, and/or Charge Transactions.

Within this document, the lettering/numbering convention identifies the type of record. For example, the section regarding bibliographic records uses a letter/number combination that begins with B. These codes are not references to outside documents.

While I-Share is a shared system, many of the data conversion decisions that new I-Share participating libraries must make will be the library’s own local decisions. These choices are marked as “LOCAL” in this document.

However, CARLI has established certain consortial requirements because some decisions affect how the data in the library’s local Voyager database interact with the I-Share Universal Catalog (UC), Universal Borrowing (UB), or other Voyager cross-database functionality. In addition, Ex Libris imposes some specific requirements on the data conversion process. These choices are marked as “RECOMMENDED”, based on CARLI’s experience with the Voyager system.

All of the I-Share documentation cited within this document is also available from the CARLI website at this URL: <http://www.carli.illinois.edu/products-services/i-share/newmem>

Do not hesitate to send any questions to your CARLI project manager or to CARLI Support at support@carli.illinois.edu.

(Section G) Voyager Data conversion in General

G1. “Local” Voyager Databases and I-Share Union Catalog

Each I-Share library has its own separate (often called “local” but housed on CARLI servers) Voyager database that represents only that library’s collection. The I-Share union catalog (UC) is a separate, de-duplicated Voyager database. Shortly after the library’s local Voyager database is “live”, the library’s Voyager data will be loaded into the I-Share Union Catalog.

G2. Data Exports

Each library is responsible for getting a full copy of its data from its current system on the schedule required for both the test and production loads. The library is responsible for any expenses incurred to have a vendor or other third-party retrieve these data.

G3. Test and Production Data Loads

For each type of data conversion (i.e., bib records, patron records, item status records), there will be a full test load and a full production load. Each library will be responsible for testing each type of data conversion. This includes identifying example records prior to the load and verifying the conversion results for those example records. Ex Libris will not proceed with a subsequent data conversion load until the library has formally accepted (in email) the previous load.

Ex Libris strongly recommends that libraries provide a full set of data for each test load, not just sample data. This allows Ex Libris to identify problems during the test load cycle, rather than be surprised by them during the production loads.

For a diagram of the data conversion sequence, and the relative timing of SysAdmin (i.e., the Voyager policy file setup) tasks, see the document called “Voyager Data Conversions (Graphic Outline)” available at

http://www.carli.illinois.edu/sites/files/i-share/documentation/conv_box.pdf

G4. Gap Periods

There will be, for each type of production data load (i.e., bib records, patron records, item status records), a “gap period” between the time the library copies the data from their current system and the time the library accepts the Voyager production load of that data. “Gap period” means that this is a period when you no longer want to apply changes to the old system as they will not be included in your migration to Voyager, but you have not yet signed off on your Voyager migration, so you can’t edit that database yet. **You should plan to refrain from making additions or changes to your old system’s data during “gap” periods.** If you must make a change, you will need to keep a record of the change(s) and apply the same change(s) in Voyager after you accept your production load. The longest gap period that libraries should plan for is the production bibliographic/holdings(MFHD)/item record load (i.e., the “bib load”). The bib load gap is typically 3 weeks to a month long. The production patron load gap is typically 10 days to 3 weeks. For the production circ (item status) loads, CARLI encourages libraries to extract this time-sensitive data as close to the production load date as possible, and to perform their data review as expeditiously as possible, so that the circ gap period is no more than a day or two long.

G5. Data Migration Questionnaire (DMQ)

Ex Libris will convert data as specified in this document and in the Data Migration Questionnaire (DMQ) that each library submits.

G6. Other Data Cleanup Projects

Data “cleanup” is typically outside the scope of the I-Share migration project. While Ex Libris may be able to perform some edits, this work is likely to be at extra cost to the library and can impact the overall project timeline. Please discuss any of these plans with CARLI staff before your data migration work begins as we typically cannot change the project timeline once it is agreed upon between CARLI and Ex Libris.

G7. Standard and Optional Data Migrations

This document assumes that each new I-Share participating library will convert the types of data in the “standard” conversion package from Ex Libris, which includes the “bib load” (bibliographic, authority, holding/MFHD, and item records); the patron record load; and charge/renewal transaction load. This document assumes each new I-Share library will not convert data in the “optional” loads including acquisitions vendor record data, open purchase order data (with or without fund mapping), serials pattern records, fines and fees data, and holds and recalls data. **Optional migrations cannot be added to the project after the project timeline has been established between CARLI and Ex Libris.**

G8. Voyager Owning Libraries

(RECOMMENDED) While Voyager can support multiple “owning libraries” within a single database, CARLI does not recommend it. The “owning libraries” feature is a way to restrict staff from editing or deleting records that belong to another library within the same institution and Voyager database. CARLI recommends that libraries avoid the profiling complications and duplicate records that multiple “owning libraries” will introduce. Instead, libraries can learn how to configure Voyager’s security settings during the Voyager System Administration training.

(Section B) Bibliographic Records

B1. Old System Control Number

The standard Voyager bibliographic record conversion program will move the bib record control number from your current system to the 035 \$9 in Voyager. CARLI indexes the 035 \$9 so that you may search Voyager by your previous system control numbers. The data load generates a new Voyager bib ID number, in the 001 field.

B2. 003 Field

The conversion program strips the 003 tag from each bib.

B3. 005 Field

The conversion program updates the 005 field in each bib with a system-supplied date/time stamp.

B4. 949 Field

Prior to bib load processing, a script will move to another field in the bib record any existing 949 field data that the library wants to retain after the load. The standard Voyager bib load process uses the 949 field to store holding data in the bib record, temporarily. At the end of the bib load process the script removes all 949 fields completely. If your library has existing 949 data that must be retained in the converted bib records, include this requirement in your completed DMQ.

In Voyager, the 949 field has no specific functionality. In all previous data conversions to I-Share, libraries have elected not to copy existing 949 field data to another field during the conversion, because these data are usually specific to the former library system and would serve no purpose in Voyager.

B5. OCLC Number 035\$a

The standard Voyager bib record conversion program will move the OCLC control number to 035 \$a in Voyager bibs.

Because CARLI relies primarily on the 035 \$a (usually the OCLC number) for de-duplicating record loads to the I-Share Union Catalog, it is very important that libraries work with Ex Libris and CARLI to format OCLC numbers properly to the 035 \$a in Voyager bib records.

If your current system stores the OCLC number in a unique field/subfield (for instance, in DRA it was 010 \$o), you must share this information with Ex Libris so that the OCLC number can be mapped to 035 \$a in the Voyager bib records.

If your current system has data other than OCLC numbers in the OCLC number field (such as, for instance, control numbers for “short” bib records), you must work with Ex Libris to try to distinguish valid OCLC numbers from those “other” numbers. It’s often possible to identify OCLC numbers based on the prefixes “ocm” or “ocn” or “ocl7” or “(OCoLC).”

If your current system stores both the OCLC number and your system control number in the 035 \$a, it is imperative that you work with Ex Libris to distinguish OCLC numbers from the system control numbers. The conversion program will map the system control number to 035 \$9, and the OCLC number to 035 \$a.

No matter where your current system stores the OCLC number, it is important to try to remove non-OCLC numbers from the 035 \$a in the converted Voyager bib records.

Example:

Many bib records (particularly those created with now-obsolete cataloging practices) contained data similar to the following:

035 \$a 2135186 \$b MULS
035 \$a 2135186 \$b KKUA
035 \$a 542530 \$b USPS
035 \$a 1 \$b SPID
035 \$a 770683

(RECOMMENDED) Voyager indexes only the \$a in the 035 field, not the \$b. As a result, unprefixed numbers in the \$a can be ambiguous, and contribute to “false matches” with other records in the I-Share union catalog. CARLI strongly recommends either that libraries remove these types of 035 \$a data from their bibs before they extract them from their system, or that libraries arrange for Ex Libris to remove these data as part of their bib record conversion. Note that when Ex Libris deletes obsolete 035 \$a data they actually delete the entire 035 field, including any \$b data. 035 field deletion is common for all new I-Share library projects.

Older cataloging practices in some libraries included adding a copy number to 035 \$a (as in the SPID example above). Having many records with identical 035 \$a data in them will negatively affect the 035 \$a index in the local database, and these records will definitely cause false matches or discards when CARLI feeds them into the UC.

Voyager indexing on the 035 \$a will distinguish records that have some sort of prefix within the 035 \$a.

Example:

The following records would not be considered duplicates either in the local database or when loaded into the UC:

035 \$a (GPO)12345678
035 \$a (OCoLC)ocm12345678

On November 12, 2006, OCLC began to output bib records with the OCLC control number in both the 001/003 fields (which had been their practice for many years) and in an additional 035 \$a. The data in the OCLC-supplied 035 \$a are not identical to the data in the 001/003, in that they lack the “ocm” or “ocn” prefix and do not include leading zeroes when the OCLC control number is less than 8 digits long. These new OCLC-supplied 035 \$a data will look like the examples below.

Example:

035 \$a (OCoLC)1
035 \$a (OCoLC)9999
035 \$a (OCoLC)7654321
035 \$a (OCoLC)12345678
035 \$a (OCoLC)123456789

When a bib record contains both the OCLC number derived from the 001/003 and the OCLC-supplied 035 \$a, the differences between the two numbers can cause problems with duplicate detection, not only in the local database but also, and especially, in the UC.

(RECOMMENDED)CARLI strongly recommends either that libraries remove from their bibs OCLC-supplied 035 \$a data that duplicate 001/003 data, before they extract their bibs from their system; or that libraries arrange for Ex Libris to remove these data as part of their bib record conversion.

On November 12, 2006, OCLC also began to add a \$z to their newly supplied 035 field, when the bib record contains an 019 field. The \$z data represent deleted/merged OCLC control numbers. CARLI believes these 035 \$z data do not provide any additional functionality beyond what the 019 field provides, and recommends that libraries delete from their bibs 035 \$z data that duplicate 019 data before they extract their bibs for conversion. Ex Libris' standard conversion programs for normalizing OCLC numbers do not normalize the 019 or de-duplicate records using the 035 \$z.

(RECOMMENDED)If the library has no particular need to retain any 035 \$z data in their converted bibs, CARLI recommends that libraries ask Ex Libris to delete all 035 \$z data as part of the bib load.

B6. OCLC Number Format

Converted OCLC numbers must be consistent with OCLC numbers that libraries will add to their Voyager databases after conversion.

- a. The conversion program must normalize OCLC numbers with eight or fewer digits to contain the "(OCoLC)ocm" prefix, nine-digit OCLC numbers to contain the "(OCoLC)ocn" prefix, and ten-digit OCLC numbers to contain the "(OCoLC)on" prefix,
- b. The OCLC number normalization routine must add leading zeroes to OCLC numbers that are less than 8 digits long.
- c. If any OCLC numbers that include the "ocm" prefix are longer than 8 digits (excluding the prefix), then the normalization routine must trim the excess digits. For example, the following OCLC number must be trimmed after the 8th digit.

Example:

(OCoLC)ocm00000081 800813 would become (OCoLC)ocm00000081

However, the normalization routine would not trim a 9-digit OCLC number that includes the "ocn" prefix, because this is the valid format for OCLC numbers greater than 99,999,999:

Example:

(OCoLC)ocn123456789

- d. Not all bib records will have an OCLC number; some bib records will have will have one OCLC number; no bib that Ex Libris converts should have more than one OCLC number in the 035 \$a.

B7. Item Records without Bib Records

If your current system contains any item records that are not linked to any real bibliographic record (some systems call these "on-the-fly" or "uncataloged items"), the conversion programs must create a bib record. Voyager requires a bib and MFHD record for all item records (even Voyager on-the-fly records).

(LOCAL) Libraries whose data contain item records that are not linked to any bib record must work with Ex Libris to create a specification for this bib record creation.

B8. Bibliographic Records Must be in MARC Format

Ex Libris assumes that all bib records they will convert from the current system are in the MARC bib record format.

B9. Duplicate Records

The standard Voyager bib record conversion program does not de-duplicate bib records as they are converted. Ex Libris will load into Voyager all bib records the library extracts and supplies to them.

B10. Unicode

Ex Libris will convert all bib records to Unicode. This includes setting the bib record's Leader byte 9 value to "a" and moving diacritic characters so that they follow their base character. The conversion process will move to a log file any bib records that contain characters that cannot be converted to Unicode, and any records that have encoding errors that prevent them from being converted at all. Libraries will have access to these log files during conversion testing and may wish to correct these bibs in their system prior to the extraction for the production bib load, if possible.

B11. Item Level Information in Bib Records

The standard Voyager data migration programs look for item level information embedded in the extracted bibliographic records, out of which to create Voyager item records and usually also MFHD records (unless the library supplies extracted MFHDs). The item level field(s) in the bib record will vary, depending on the current system's configuration, so the library must identify its item level fields and subfields in their DMQ.

(LOCAL) If an individual extracted bib record contains the field in which Ex Libris expects to find item level information, but does not contain the subfield in which Ex Libris expects to find the current system location code, or if that subfield contains no data, then the conversion program will supply a location code of "DFLTLOC," (Default Location) which the library can map to any Voyager location code it chooses.

If an individual extracted bib record does not contain the field in which Ex Libris expects to find item level information, the conversion program will supply the field and subfield, and will populate the subfield with a location code of "DFLTLOC," which the library can be map to any Voyager location code it chooses. In this scenario, the program creates only a MFHD record to contain the location code; it will not create an item record, and the MFHD will not contain a call number or any other data elements.

(Section A) Authority Records

A1. LC Authority Files in Voyager

Cross-references in the WebVoyage public catalog and guidance in the Voyager cataloging client on headings catalogers should apply require authority records in the Voyager database.

(LOCAL) Each library needs to decide whether to extract and convert authority records from the current system in addition to loading I-Share-supplied Library of Congress authority records into the local database. There is no charge to the library to load the I-Share-supplied LC authority file(s) into the local database, for either the initial load or ongoing weekly loads.

A2. Migrating Local Authority Records

If the library has added many locally-created authority records or has edited other authority records extensively in the current system, the library may wish to extract and convert the existing authority records into its Voyager database.

(LOCAL) If you do convert authority records, you will need to work with Ex Libris on specifications. It may be possible, depending on the current system's extract programs, to extract and convert only one type of authority record (such as subject authorities) but not to extract/convert another type of authority record (such as name authorities).

A3. Headings vs. Authority Records

If the current system automatically creates an authority record for every bibliographic heading, Ex Libris strongly recommends that they not load such records into Voyager. Such records are not necessary for Voyager functionality and could erroneously "authorize" invalid headings.

(LOCAL) If you choose to convert local authority records to Voyager, you should extract only complete records that contain cross-references and/or tracings.

A4. CARLI-Provided LC Authority Files

If the library does not plan to convert its current system authority records, the library may request that Ex Libris load the full set of Library of Congress Name and/or Subject Heading authority records. CARLI has a subscription to the full set of LC Name (including series titles) and Subject Headings authority files. As of January 2016, this file includes 9,865,883 total authority records. Ex Libris will load either or both of these types of authority records at the time of conversion, at no additional charge to the library.

(LOCAL) Libraries that choose to load fresh LC authority records will need to notify CARLI and Ex Libris early in the conversion process. Most I-Share libraries have chosen to load the full set of LC authority records (both LC Name and Subject Headings) at the time of conversion.

A5. LC Authority Updates

CARLI also subscribes to the ongoing weekly LC authority updates. CARLI assumes that libraries that elect to load the full set of LC authorities will also want CARLI to load the weekly files into their database on a routine basis.

CARLI-supplied LC authority records that Ex Libris loads will be current as of the date CARLI extracts the data from an existing I-Share library's production database. Once the new I-Share libraries are live with Voyager, CARLI staff will load the backlog of weekly authority files (since the extract date) into the new databases. Regular weekly loads begin after that, for which there is no charge to the library.

A6. NLM MeSH Headings

CARLI does not have a subscription for the National Library of Medicine's subject authority records (MeSH). Libraries that have a substantial medical collection and that rely on MeSH headings in their bib records may choose to obtain the complete file of MeSH authority records on their own, for Ex Libris to load into the library's database at the time of conversion. The library would also be responsible for maintaining the MeSH authority records after the conversion.

(LOCAL) If libraries use MeSH headings exclusively, the library may elect to supply MeSH authority records for their subjects but to accept name/title authority records from LC.

(Section M) MARC Format for Holdings Data (MFHD) Records

Points M1-M9 apply to all new I-Share libraries. Points M6-M9 apply to the conversion of holdings data that are not already in MFHD format. Points M10-M16 apply only to libraries that will convert existing MFHDs, either for their entire collection or for a subset of their holdings.

M1. Migrating MFHDs or Creating MFHDs During Migration

The data conversion process will either convert existing MFHD records or create new ones. MFHDs are an essential part of the Voyager record structure.

M2. “Bound-with” Holdings

If your current system contains any “bound with” records that you want to convert (that is, any single item records that link to multiple bibliographic records), you must warn Ex Libris so they can process those records correctly. The standard Voyager conversion program will map the bibliographic record control number from the current system to the 014 \$a in the Voyager MFHD. This maintains the link between the MFHD and bib record during conversion. For “bound with” records, the program can map multiple bib IDs to the same MFHD 014 \$a.

M3. Voyager Location Codes

The standard Voyager conversion program will map the location data from the current system to a Voyager location code, which is stored in the MFHD 852 \$b and in the Voyager item record’s Permanent location field. Voyager locations cannot be longer than 10 characters, including punctuation and blank spaces. Other than this limitation, libraries can establish location codes as they need to, to meet local needs.

M4. Things to consider when establishing Voyager location codes

- a) Users will not see location codes in the public interfaces, but staff will see them. (Users see codes translated into location names.)
- b) In the Voyager Cataloging client, the location code will display and can be edited in the MFHD 852 \$b. In addition, Voyager bulk import (batch load) functionality allows you to embed MFHD fields and subfields (including Voyager location codes) in an OCLC bib record, from which the bulk loader will copy them directly into the Voyager MFHD as part of the load.
- c) **(RECOMMENDED)** Location codes are case-sensitive. For the kinds of locations used during the data conversion process (shelving locations), **CARLI recommends that libraries use either all lower-case or mixed lower- and upper-case letters for the location codes.** (I-Share libraries’ convention is to use ALL CAPS for Voyager happening location codes, which become relevant after data conversion.)
- d) Libraries should keep the codes as simple as possible, minimizing punctuation and case changes, to make them easy for staff to type.
- e) **(RECOMMENDED)** CARLI recommends using a consistent convention for location codes to identify branch or campus locations, in order to make SysAdmin profiling more efficient and less prone to error. For example, at the Illinois Eastern Community Colleges (IEC), all Voyager location codes for the Olney campus begin with the letter “o,” and all locations for the Lincoln Trail campus begin with the letter “l.” So, Olney’s main stacks location code is “ostx” and Lincoln Trail’s main

stacks location code is “lstx.” This has worked well for IEC, and is consistent with other I-Share libraries that have branch campuses.

- f) A library establishes its first Voyager location codes during the data conversion process: the library will map to Voyager location codes from their current system’s locations when they create the “Location Load Mapping Table” (also known as the “ABBA table”) in the DMQ. It is possible to change the location code in a MFHD or item record after conversion, but it can be a difficult procedure to do so globally, depending on various circumstances in the library’s data. Changing the public form of location name is a simple matter, but CARLI strongly recommends that libraries establish their location codes with care, and that they plan to continue to use them (as well as other location codes defined later) for the long-term.

Please see the more detailed information about Voyager location codes found in the “Item Records” section of this document, below.

M5. 856 Fields (URLs) in MFHDs

CARLI strongly recommends that libraries place in the 856 field of the MFHD record the URL appropriate to their local users. The bib record’s 856 field does not currently display in the I-Share union catalog. For more information, see:

http://www.carli.illinois.edu/sites/files/i-share/documentation/secure/cater2009_finalreport.pdf.

(RECOMMENDED) During your data conversion, Ex Libris can copy all bib 856 fields to the associated MFHD record, thus bringing your records into compliance with CARLI recommendations, assuming you have maintained the URLs in your bib 856 fields, so that they are correct for your users. This is indeed a copy process, not a move process, so the URLs remain in the bibs as well as the MFHDs.

M6. Call Numbers in MFHDs

Libraries must provide information about their call numbers, so that Ex Libris can store them correctly in Voyager and Voyager can index them correctly. Voyager stores the call number in the MFHD 852 field.

M6a. Call Number Subfields

According to the MFHD standard, the classification part of the call number belongs in 852 \$h, the cutter in 852 \$i. Call number prefixes (if any) belong in 852 \$k; call number suffixes (if any) belong in 852 \$m.

Voyager indexes the MFHD 852 \$h and \$i to support call number searching in the WebVoyage public catalog and staff clients. In the staff clients, staff can filter call number searches by type of call number (Dewey, Library of Congress, SuDoc, NLM, etc.).

M6b. Call Number Classification Schemes

Voyager normalizes the call numbers in all newly added records (whether at conversion or later) according to call number type. Voyager indexes any call number it cannot normalize as type Other. This can affect shelisting tasks within the Cataloging client, when staff apply what they expect is the correct call number type filter.

As part of the conversion process, the library will need to inform Ex Libris about which classification schemes they use in their collections. Ex Libris will use this information to determine the normalization rules they will apply, as well as to set the MFHD 852 field’s first indicator value.

If you use only a single classification scheme (e.g., just LC, or just Dewey) for all items in all locations, all you need to do is tell Ex Libris what that classification scheme is.

If you use multiple classification schemes, however, you will need to prepare a mapping table that details which locations in the current system use which classification scheme. This “Holdings Indicator Mapping Table” will be an Excel file, with the current system’s location code entered in the first column and a numeric classification type code in the second column.

Example:

This library uses Library of Congress classification for all locations except their juvenile collection, which uses Dewey. Their Holdings Indicator Mapping Table would look something like the chart below.

Current system location code	Classification type code
Main	0
Ref	0
Spec	0
Juv	1

M6c. Voyager Classification Scheme Codes

Valid classification type codes are:

Code	Classification Scheme
0	Library of Congress (LC)
1	Dewey (DDC)
2	National Library of Medicine (NLM)
3	Superintendent of Documents (SuDOC)
8	Other

M6d. Call Number Prefixes

If you tell Ex Libris to expect subfielded call numbers in your current system's bibliographic records, the conversion program will copy classification data into the MFHD 852 \$h and the remainder of the call number into MFHD 852 \$i. If you tell Ex Libris to expect unsubfielded call numbers (in your current system's bibliographic or item records), the conversion program will copy the whole call number into the MFHD 852 \$h. According to Ex Libris, “From the point of view of call number display and indexing, it makes no difference whether the call number is parsed into \$h and \$i or not.” What does make a difference, though, are call number prefixes and suffixes such as REF., DOC., etc.

(RECOMMENDED) If your library has used any call number prefixes or suffixes, provide Ex Libris with a list of them, including case and punctuation. The conversion program will then parse prefixes into 852 \$k, and suffixes into 852 \$m, where Voyager will not index them. Any prefixes or suffixes left in the indexed 852 \$h or \$i will almost certainly cause the call number normalization to fail: Voyager would then index the call number as type “Other,” which would affect searching and sorting.

M7. Enumeration and Chronology

When the conversion program encounters serial or multi-volume materials (that is, any items with enumeration other than a simple copy number), it will copy the enumeration/chronology information from the item record(s) into MFHD 866 \$a field(s), one 866 field per item record. Voyager uses the enumeration data in the item record for most of its functionality, but uses MFHD 866 data for some OPAC display purposes. The conversion program will sort the newly-

created 866 fields in the MFHD, in ASCII ascending order by default. If you want a different sort order, you must negotiate this with Ex Libris.

M8. Copy Numbers

The standard Voyager conversion program will create separate MFHDs whenever the converted item records contain different copy numbers, even when the location and call number are the same. The conversion program will need to add an 852 \$t to each MFHD created in conversion, and the value in 852 \$t will be populated from the item record’s copy number. If a converted item record does not contain copy number data, the 852 \$t value will default to “1.”

The 852 \$t should contain a copy number only, without the word “Copy.” CARLI's implementations of WebVoyage and VuFind supply the label “Copy:” before 852 \$t data in OPAC displays.

M9. Item Notes. If your current system has item record notes, you must decide whether Ex Libris converts these notes to Voyager item record notes or to MFHD notes. In Voyager, item record notes never display to the public; staff can see item record notes in the staff clients.

If you decide to convert current item notes to MFHD notes, you must decide whether they will be title-level notes or item-level notes.

	Displays in OPAC	Displays only in staff client
Title-level MFHD note	852 \$z	852 \$x
Item-level MFHD note	866 \$z	866 \$x

(LOCAL) Ex Libris can convert current item record notes to MFHD notes easily. If you need to be selective, however, and convert only some current item record notes to MFHD notes, or convert some current item record notes to item-level MFHD notes and some to title-level MFHD notes, or convert some current item record notes for public display and some for staff-only display, then that will require custom programming, at extra cost. In the previous I-Share conversions to Voyager, all but one library chose to convert their current item record notes to Voyager item record notes rather than MFHD notes.

Migrating Existing MFHDs

The rest of this section applies to libraries that will convert existing MFHDs from their current system. If your library does not currently have MFHDs, skip to the next section on Item records.

M10. Creating Voyager Location Codes in Existing MFHDs

If your current system uses MFHD records for some or all of your holdings, Ex Libris can convert them to Voyager. The standard Voyager conversion program will change the MFHD 852 \$b data to a Voyager location code. Unless the library has other MFHD record updates to negotiate with Ex Libris, Ex Libris will load your MFHDs as they are when you extract them, except as noted in M11 through M15 below.

M11. Migrating Existing MFHD “Bound With” Data

If you will convert MFHDs to Voyager and if any of the MFHDs represent “bound with” situations (a single MFHD that links to two or more bibliographic records), notify Ex Libris.

The standard Voyager conversion program will map the 004 or 014 field in the current system's MFHD to the 014 \$a in the Voyager MFHD. This maintains the link during conversion between the MFHD and bib record, using the bib record control number from the current system. (

For “bound with” situations in converted MFHDs, the conversion program can add multiple 014 \$a's to a single MFHD. The program will convert all existing 004/014 fields in any current system's MFHD to 014 \$a fields in a Voyager MFHD.

M12. Migrating Existing MFHD Notes Data

If your library has MFHDs that describe holdings in notes fields (852 \$x or \$z) or in 866 fields, but that do not have corresponding item records, the MFHDs will load as they are; the conversion load program will not create item records. The library will need to work with Ex Libris to map the location information (852 \$b) in the current system's MFHDs to Voyager locations, for any item-less MFHDs.

M13. Migrating Existing 85x/86x MFHD Data

While Voyager does support the MFHD standard, Voyager uses 85x/86x pairs in the MFHD for display purposes only. Voyager uses the enumeration information from the item record for most circulation functionality. The standard Voyager conversion program will copy item record enumeration into the Voyager item record's Enumeration field(s). Libraries may either retain or delete existing 853/863, 854/864, and 855/865 pairs in their MFHDs during conversion. CARLI recommends that libraries retain existing 85x/86x pairs in Voyager MFHDs, for OPAC and staff client display purposes.

(RECOMMENDED) CARLI recommends against retaining 866 data from existing MFHDs in Voyager MFHDs.

(RECOMMENDED):For Voyager functionality, the conversion program should reset the 853/854 and 863/864/865 first and second indicator values in converted MFHDs as follows

853 field = indicators 2 and 3 respectively
863 field = indicators 4 and 0 respectively
854 field = indicators 2 and 3 respectively
864 field = indicators 4 and 0 respectively
855 (no indicators)
865 field = indicators 4 and 0 respectively

M14. Copy Numbers in Existing MFHD Data

The conversion program will add an 852 \$t to any converted MFHD that does not already have one, based on the value in the 863/864/865 \$t. If a MFHD does not have any \$t data at all, the conversion program will add an 852 \$t with a default value of “1.”

The 852 \$t should contain a copy number only, without the word “Copy.” CARLI's implementations of WebVoyage and VuFind supply the label “Copy:” before 852 \$t data in OPAC displays.

M15. Barcode Numbers in Existing MFHD Data

The conversion program will delete any \$p data (barcode numbers) from any field in the converted MFHDs. Voyager stores barcode numbers in item records.

(Section I) Item Records

II. Item Record Fields

The table below represents the item record fields that Ex Libris' data conversion programs can populate. The "Item Level Data Migration Questionnaire for Concise Voyager Migration" (DMQ) contains much of the mapping information that Ex Libris needs to convert item records.

If there is an entry in the "Voyager MFHD Record Field" column in the table below, this means data from the MFHD record are replicated in the item record. You cannot have a different value in the item and MFHD records for these particular fields.

For more detailed information on each of the item record fields in the chart below, see the *Voyager 9.1.1 Cataloging User's Guide*, pages 2-62 through 2-74.

Voyager Item Record Field	Voyager MFHD Record Field
Permanent Location Code	852 \$b
Classification Number	852 \$h
Cutter	852 \$i
Copy Number	852 \$t
Barcode	
Item Type	
Enumeration	
Chronology	
Year	
Free text Enumeration/Chronology	
Item Price	
Temporary Location Code	
Midspine	
Piece Count	
Historical Charges	
Historical Browsers	
Notes	
Previous Barcode	
Item Status	
Item Status Date	
Item Statistical Category	

12. Item Status Codes

The Item Level Data Migration Questionnaire for Concise Voyager Migration contains the list of valid Voyager item status codes the conversion program can apply. Voyager does not support customized item statuses, so the item statuses in the DMQ are the only ones possible.

The following statuses do not display in the OPAC. Items with one of these statuses (and no other additional status) display as “Available” in the OPAC.

Damaged
Withdrawn
Cataloging Review
Circulation Review

Cataloging Review and Circulation Review statuses behave similarly to each other: when a staff person discharges an item in one of these statuses she sees a pop-up message that tells her to send the item to her Cataloging or her Circulation department. The pop-up message will appear each time someone discharges the item, until someone manually removes the Cataloging or Circulation Review status from the item record.

13. Migrating Item Status Data

If you plan to map item statuses from your current library system to Voyager, you will need to supply to Ex Libris an Item Status Mapping Table. This must be an Excel file with 2 columns. The first column will be the item status code from the current library system, the second column will be the Voyager item status code, as described in the DMQ.

Example:

This library wants to convert some of their item statuses to Voyager. Their Item Status Mapping Table would look something like this the chart below.

Current System Item Status Code	Voyager Item Status Code
M	MISS
B	BIND
L	LOST

14. Item Status Date

The standard Voyager data migration program will add a default item status date to all item records created. This default will be the date on which Ex Libris performs the pre-load processing. If you convert an item status date from your current system, the “real” item status date will override the default date. If you also convert charge/renewal transactions, then date information from the circ transaction (such as the charge date) will also override the default item status date.

15. Item Copy Numbers

If an imported item record does not contain data for the copy number field, the conversion program can supply a default value of 1, or Voyager will supply a default value of 0 (zero).

(RECOMMENDED) CARLI recommends that libraries request Ex Libris to supply a default copy number of 1 for better public catalog displays. Copy numbers do not always display in the OPAC: they

display when the item is in an “unavailable” status, such as when it is charged to a user. If the copy number is 0, the copy number does not display at all, even when the item is unavailable. In addition, if the item record copy number is zero, Voyager sends overdue notices that omit copy information. Most I-Share libraries have used the default of copy 1 instead of copy zero in their Voyager item records.

I6. Other Item Data

Ex Libris may require additional mapping tables (Excel spreadsheets) to map your item data to Voyager, depending on the structure of the data in your current system. An Ex Libris Data Analyst will discuss these mapping tables with you, as needed.

(Section P) Patron Records

P1. Choosing to Migrate Patron Records

In order to convert any charge transactions, or the optional fines/fees and recall transactions (i.e., the “circ loads”), the associated patron record must exist in the Voyager database prior to the circ load(s). Therefore, libraries planning to use any of the circ loads must also perform a patron load.

P2. Patron Migration Options

(LOCAL) If the library elects to convert patron records, there are two options for the format of the extracted patron data. It is the library’s decision on which option to use for the initial conversion.

Option 1: The patron data may be extracted using the requirements as detailed in Ex Libris’ Patron Record Standard Interface Format (SIF). This SIF is available within the *Voyager 9.1.1 Technical User’s Guide*, chapter 19 or from the CARLI website at <http://www.carli.illinois.edu/sites/files/i-share/documentation/secure/patronSIF.pdf> .

Note that the Patron Record SIF is used both for the initial conversion to Voyager and for batch mode updates to existing patron records, after conversion. In the SIF, when references are made to “updates” this usually means the reference is not applicable to initial patron conversion loads.

An advantage to using the Patron Record SIF option for the initial conversion is that it gives the library experience using the SIF format before the time when the SIF format will be required (for ongoing patron batch updates, should you chose to do them). After the initial conversion of patron data, any batch updates to patron data MUST be supplied in the patron record SIF format; option 2 described below is NOT available for ongoing batch loads of patron data after the library is live on Voyager.

Option 2: If it is not possible for patron data to be extracted in the Ex Libris Patron SIF format, the data can be delivered to Ex Libris as a single file with delimited fields representing the same data as that found in the SIF. In previous I-Share conversions to Voyager, this option usually took the form of an Excel spreadsheet with each row representing an individual patron record, and each column representing a distinct data element in each patron record.

If this option is used, it is the library’s responsibility to provide Ex Libris with a map detailing how the data elements of the delimited patron record are to be mapped to the patron SIF format (e.g., where the patron barcode is located in the delimited patron record, and so forth for all the data elements included in the extract). If this option is used, all of the fields marked as required in the SIF must be present in the delimited file.

P3. Choosing the Source of Patron Data to be Migrated

(LOCAL) The library must decide on the source of the data for the patron record conversion.

The Patron SIF format used for data conversion is the same format that libraries use for ongoing batch loads (patron updates) after conversion to Voyager. If you will extract your patron data from your campus registration database (or applicable equivalent) rather than from your current library system, the program(s) used to extract and format patron data for conversion can be used again in the future for patron updates.

However, extracting patron records from the campus database rather than the current system may result in an incomplete set of patron records being converted to Voyager. For example, the current system may

contain patron records for community borrowers, alumni, or other patrons that might not be included in the campus database.

For each of the circ loads, if the associated patron record is not found in the Voyager database either because the record was not included in the converted data at all or because the patron load rejected the record, the circ transaction also will be rejected. In these cases, a message is written to the circ load log file, for prompt manual cleanup following the circ load(s). Of course, rejected circ transactions also mean that incorrect item status information will display in the OPAC until these rejected transactions are manually reconciled (e.g., items may appear in the public catalog with status “Available” when they are really charged to a patron and therefore are not really available for requesting).

(RECOMMENDED) For the sake of accurate item status availability, CARLI recommends that libraries convert patron data (and circulation transactions) from their current library system, but this may not be possible for all libraries. Therefore, the source of patron record data remains a library decision.

P4. Required Fields in Patron Records

The Patron SIF contains many fields that are considered required by the load. Whenever an individual record does not contain any of these required fields, the patron conversion program will reject either the entire record or the segment of the record that does not contain the required data. Whenever records or parts of records are rejected, a message is written to the patron load log file. Libraries are encouraged to pay particular attention to those fields marked as required in the SIF and to make sure that as many records as possible that are extracted contain all of the required fields.

(RECOMMENDED) The library may want to run pre-conversion cleanup reports on their patron records and correct any records (as applicable) that do not contain the required field(s), prior to the patron conversion test loads.

P5. De-duplication of Patron Records

In the Voyager system, technically there are two fields in the patron record that can be used for de-duplication purposes: the Social Security Number (SSN) or the Institution ID (InstID), which is usually a campus-based unique identifier for each student/staff/faculty member.

As of August 2008, CARLI required all I-Share libraries to suspend use of the SSN in Voyager. CARLI will not support populating any patron records with the SSN in any field (i.e., the SSN, barcode, or Institution ID field(s)).

Each I-Share library’s patron record conversion must use the Institution ID as the de-duplication field. Because the Institution ID will be used for de-duplication purposes, this field is considered a required field in each record and the value entered in that field in each record must be unique.

The patron conversion program will reject incoming records that do not contain the Institution ID field, and therefore any circulation transactions linked to that patron record will also be rejected in the circ load(s). If multiple incoming records contain the same value in the InstID field, the first record processed by the conversion program will be added to the database, and the conversion program will reject subsequent records that include the same value.

For more information about Institution IDs, see section P18 below.

P6. Expired Patron Records

(LOCAL) The Voyager patron conversion program can load patron records whose expiration date has past. If the library will convert patron records from the current system, the library must decide whether to include expired patron records in the conversion.

In the circulation client and UB functionality, Voyager relies heavily on the expiration date to determine whether a patron record can be used for circ and requesting functionality. A patron record whose expiration date is in the past cannot be used for charging materials either at the home library or for onsite reciprocal borrowing. A patron whose record in Voyager has an expiration date in the past likewise is prevented from placing a request via the OPAC. There is a “purge date” field in the Voyager patron record, but it is used only with a batch program that deletes old patron records from the database.

(RECOMMENDED) Some other library systems offer purge programs or other utilities that will remove expired patron records from the database. Usually these patron purge programs will not delete a patron record that has associated charges, fines, etc. If it is appropriate to the institution’s policies and if the current system’s purge programs will retain records with associated charges, CARLI strongly recommends that new member libraries purge expired patron records prior to the patron data extract for conversion to Voyager.

(LOCAL) If the new I-Share library’s current system does not support patron record purge functionality, the library can request that CARLI staff run patron record purge after the library is live on Voyager, in order to remove expired records from the patron file.

(LOCAL) In Voyager, patron records have an expiration date field, and barcode number records can also be marked with the status of Expired. When patron records are displayed in the Voyager circulation client, the expiration date field is on a different tab than the one that displays by default when the record is retrieved. The barcode number and its associated status displays when a patron record is retrieved without having to click to another part of the record. Because of this display issue, some libraries choose to have the patron barcode status set to a value of “4” (for Expired) whenever the patron’s expiration date is in the past. If this option is not used, then it is likely that the default patron record display will show a barcode status of Active, even though the record itself is expired.

Technically, barcode numbers with the status of Expired cannot be used for Voyager functionality, even if the patron record itself does not have an expiration date in the past. So, the downside to using this option is that if the patron record is reactivated/un-expired manually in the circ client, both the expiration date and the barcode status fields need to be updated for the record to have full functionality.

P7. Patron Groups

In Voyager, each patron record is assigned to a “patron group.” Patron groups in Voyager are used (in combination with location/policy group and item type) to determine loan periods, renewal periods, fine intervals and rates, and recall loan period.

Examples of patron groups are Faculty, Undergraduate Students, Graduate Students, Alumni, etc. See section P11 below for more information about the patron group field in the Voyager patron record.

Because of I-Share’s resource sharing agreements and our use of Voyager’s Universal Borrowing (UB) functionality, there are two types of patron group mapping that occur. During the initial patron data conversion/loading, each library maps its patron records using patron group codes necessary to manage circulation policies for the local collection. Then, a second mapping occurs for UB purposes, which maps the patron groups created during the initial data load to the appropriate “UB patron groups.” Each I-Share

library then sets the standard UB policies in their local SysAdmin for each of the four UB patron groups for each other I-Share library.

(RECOMMENDED) To facilitate this, two-tiered patron group mapping, CARLI recommends that new I-Share libraries that convert patron data to Voyager use the existing list of I-Share patron group codes in their patron record conversion.

The full list of I-Share patron group codes appears in Appendix C at the end of this document. When libraries are preparing their patron data for conversion/loading, only the I-Share patron group codes will be considered valid in the patron group field in the individual patron records. Libraries will have to determine how to extract and map their existing patron groups/types into the I-Share patron groups.

Libraries that are members of organizations that have reciprocal borrowing agreements need to consider to which patron groups they will map patrons affiliated with other libraries. For example, if your library's data are currently in a regional library system LLSAP and there are records in your patron file that represent public library patrons who have borrowed materials from your library, these patron records will need to be carefully considered during the patron conversion to I-Share's Voyager system. In general, these patrons are not eligible to borrow materials from I-Share libraries other than the library that granted them the original borrower ID/patron record.

(RECOMMENDED) If your current system has a way to identify and distinguish these types of patron records from your institution's faculty, staff, students, etc., then CARLI recommends that these reciprocal borrower records be mapped to one of the I-Share "local use" patron groups (i.e., courtesy or community borrowers). Then, in the UB mapping part of the implementation process, the local use patron groups will be mapped to the UB patron group "UBNoncirc" which prevents these patrons from placing requests in the OPAC.

(LOCAL) If your current system does not have a way to identify and distinguish reciprocal borrower patron records at the time of conversion, then your library has some options to consider.

If the reciprocal borrower patrons cannot be mapped differently from other patron records, the library could set a short-term expiration date for all patron records in the same patron group to which the reciprocal borrowers are mapped. Then, the library could do a patron batch update as soon as possible after the library accepts the Voyager database, and reset a longer expiration date for the non-reciprocal borrower patron records in batch mode. The library should consider this option only if it will be able to create a batch update patron dataset relatively quickly in the Voyager format. The patron update datasets use the same format as the patron conversion SIF. See the document called "Batch Loading Patron Data into I-Share Voyager Databases" available from the CARLI website at http://www.carli.illinois.edu/sites/files/i-share/documentation/secure/patron_batch_load.pdf for more information about this process.

Another option if the reciprocal borrower patrons cannot be mapped differently from other patron records is to convert these patron records along with the "regular" patron records, using the same mapping and expiration date. Then as soon as possible after the Voyager database has been accepted into production, the library would perform a manual cleanup of the reciprocal borrower patron records to edit their patron group code to one of the "local use" patron groups.

P8. Campus Mail Addresses

Overdue and other patron notices are generated by the library that owns the material, which in many cases may not be the patron's home library. In other words, items borrowed by your patrons from another I-

Share library that become overdue will result in the overdue notice being sent from the lending library to your patrons.

When paper notices are generated, I-Share libraries will mail paper notices to the patron's US Mail address as found in the patron record. But for campus mail addresses, they will mail the notices to the patron's home library for campus mail processing. Because of this workflow, it is very important that campus mail addresses include some reference to the name of the institution.

(RECOMMENDED) If your library uses campus mail addresses for either a patron's permanent or temporary address in Voyager, it is recommended that you include some kind of indication of "campus mail" and it is strongly recommended that the institution name be included in the campus mail address. One way to do this would be to include another address line in the patron records that looks something like this:

Example:

XXX Campus Mail

(where XXX represents the CARLI library's three-letter code, if possible)

The remainder of this section offers supplemental information about some of the specific fields in the patron records. Libraries are strongly encouraged to review the remainder of this section in conjunction with the information included on each field within the SIF. The field numbers refer to the Item number field in the Patron Record SIF.

P9. Barcode ID 1 (field 02)

This field represents the internal Voyager ID number of the barcode portion of the patron record, not the actual patron barcode. This field should be blank-filled in all converted patron records.

P10. Barcode Number (Field 03)

(RECOMMENDED) This field represents the actual patron barcode number (often printed on patron ID cards). In Voyager, patron records do not require an entry in the patron barcode field. However, in order for the patron to place requests or view her account information in the OPAC, or for other services that rely on validation using the Voyager patron database, a barcode is required. Therefore, CARLI strongly recommends that all patron records that will be converted to Voyager contain an entry in the barcode field in the patron record.

Voyager does no internal validation of barcode numbers, so the existing library patron barcodes should work in Voyager, as long as they do not exceed 25 characters in length.

The barcode number field may not be populated with the patron's SSN or any 9 digit SSN-formatted number.

P11. Patron Group (Field 04)

Each converted patron record requires a value in the Patron Group field.

Patron groups in Voyager are used (in combination with location/policy group and item type) to determine loan periods, renewal periods, fine intervals and rates, and recall loan period. Examples of patron groups are Faculty, Undergraduate Students, Graduate Students, Alumni, etc.

See section P7 above for more information about patron group mapping during the patron conversion. Also, see the list in Appendix C of the I-Share-approved patron group codes that can be used in the patron record conversion to Voyager.

(RECOMMENDED) Remember to use only the patron groups you need to manage your library's circulation policies. The more patron groups used during the conversion, the more complicated and labor intensive will be your SysAdmin profiling. Libraries do not have to and probably will not use all of the patron group codes on the I-Share list. New patron groups (from the I-Share list) can be used within a Voyager database after conversion, but will require SysAdmin profiling/UB mapping before they are fully functional across all I-Share databases.

The patron conversion program will reject any patron records that do not contain data in the patron group field, and therefore any circulation transactions linked to that patron record will also be rejected in the circ conversion(s).

P12. Barcode Status (Field 05)

Each converted patron record requires a value in the Barcode status 1 field, even if there is no barcode number entered in the record.

(RECOMMENDED) Remember that CARLI strongly recommends that each converted patron record contain a unique value in the barcode number field.

For full Voyager functionality, a patron record must contain a barcode status of Active (value = 1 in field 05 in the Patron SIF). If the barcode status is anything other than Active, that barcode number will be blocked from use in both the Circulation client and in the public catalogs.

(RECOMMENDED) The Patron SIF does not offer a specific field to set for existing patrons whose privileges are blocked in the current system (i.e., "problem" patrons/"manually delinquent"/"blocked" patrons). If at the time of conversion you have patrons whose privileges should be blocked in Voyager, it is recommended that you set those patrons' barcode status to Other (value = 5).

The patron conversion program will reject any patron records that do not contain data in the barcode status 1 field, and therefore any circulation transactions linked to that patron record will also be rejected in the circ conversion(s).

P13. Barcode Modified Date (Field 06)

(RECOMMENDED) CARLI recommends that this field be blank-filled.

P14. Multiple Barcodes (Fields 07-16)

(RECOMMENDED) CARLI recommends libraries import only one active barcode.

The patron conversion load can accommodate as many as three patron barcodes. However, if more than one barcode with status Active is converted, the patron group associated with the second or third active barcode number must be unique (i.e., it cannot be the same patron group as used for the other active barcode(s)).

If non-unique patron groups are included with multiple active barcodes, the conversion program rejects only the barcode and associated information for barcodes 2 and/or 3. The patron record will load with the information included in the barcode 1 fields (fields 02-06).

If the library will be converting only one barcode per patron, then fields 07-16 should be blank-filled and zero-filled, as instructed in the Patron Record SIF.

P15. Expiration Date (Field 18)

The expiration date is a required field in each patron record. Without this data, any incoming patron records would be rejected from the load, and therefore any circulation transactions linked to those patron records would also be rejected during the circ conversion(s).

(LOCAL) If the current system does not have an equivalent data field to convert, or if the library wants to reset the expiration date, the library will need to insert an expiration date that is meaningful to the institution into each record to be loaded.

Voyager circulation functionality relies heavily on the patron expiration date. No charges can be made to an expired patron record without an override. For charge transactions when the patron record has not reached the expiration date (so no override is needed), but when the due date that the system calculates for a transaction falls after the patron's expiration date, the due date will be reset to the patron's expiration date. Libraries will want to keep this functionality in mind when creating or resetting patron expiration dates as part of the conversion.

(RECOMMENDED) For ongoing patron record updates done in batch mode, CARLI recommends that an expiration date be used that is at least 4 weeks after the date you anticipate doing the next batch load of patron records.

In previous patron record conversions to Voyager, many libraries set an expiration date for their primary clientele (students, staff, faculty) to be at least a year after the date of the conversion, to give the library time to adjust to the Voyager system, and the SIF format for patron batch updates, before they were forced by functionality into performing a patron batch load in order to extend expiration dates.

The library can specify a default expiration date to be added during the patron record conversion to any incoming records that lack this data. If the library does not provide a specific default expiration date, a date of 12/31/2382 will be used. As that date is too far in the future to be useful, CARLI recommends that libraries supply a default expiration date that is more meaningful to the library's circulation policies.

P16. Purge Date (Field 19)

The patron record purge date is a required field in each patron record. Without this data, any incoming patron records would be rejected from the load, and therefore any circulation transactions linked to those patron records would also be rejected during the circ conversion(s).

The Purge date can be used as an alternative to the patron expiration date with Voyager Patron Record Purge functionality. More information about Patron Record Purge in the I-Share environment is available from the CARLI website at <http://www.carli.illinois.edu/sites/files/i-share/documentation/patron-rec-purge.pdf>.

(RECOMMENDED) If the current system does not have an equivalent data field to convert, or if the library wants to reset the purge date, the library will need to insert a purge date that is meaningful to the institution into each record to be loaded. CARLI recommends that the purge date be the same as or later than the patron's expiration date.

(RECOMMENDED) The library can specify a default purge date to be added during the patron record conversion to any incoming records that lack this data. If the library does not provide a specific default purge date, a date of 12/31/2382 will be used. As that date is too far in the future to be useful, CARLI recommends that libraries supply a default purge date that is more meaningful to the library.

P17. Library Location code (Field 22)

The library location code field is an optional field. If a code is entered in this field, it must consist of a Voyager location code that has been entered in SysAdmin prior to the patron conversion load.

(RECOMMENDED) This field does display in patron records in the Circulation client, but there is no system functionality that uses this location code. Because there is so much room for error in this field and so little current use for it within Voyager, CARLI recommends that new libraries blank-fill this field in the patron records for conversion or batch loading.

P18. Institution ID (Field 23)

Because this field will be used as the de-duplication field during the initial conversion of patron data to Voyager, each record must contain a unique value in this field.

The Institution ID field in Voyager is a maximum of 30 characters long and may include letters, digits, and punctuation. Your institution may already have a unique identifying number that is used for students, faculty, and staff. Perhaps it appears on your patron ID cards. Some institutions may use the personal part (the part before the @ sign) of each person's email address. The Institution ID field should contain a value that:

- will not be reused after its owner leaves your institution
- is assigned to students, faculty, and staff, and perhaps even to your courtesy borrowers
- will not change frequently, for example, when a lost ID card is reissued

The value entered in the Institution ID field must be unique to each record. Do not enter a value such as the institution name in this field. Within the Circulation client, patron records with duplicated values in the Institution ID field may cause problems when the patron record is edited and staff attempt to save the record to the database.

The value entered into the Institution ID field must not be the patron's SSN or any 9 digit SSN-formatted number.

P19. Social Security Number (Field 24)

CARLI will not support populating the patron record's SSN field during the patron record conversion process or for ongoing use. This field must be left blank in the patron record SIF or in delimited files of patron records.

P20. Patron Statistical Categories (Fields 25-34)

(LOCAL) Voyager supports the concept of patron statistical categories as a way to group patron information other than the Voyager patron group code. For example, a library may use demographic information (Male, Female) or student major information (Business, Liberal Arts, Nursing, etc.) as patron statistical categories. Use of patron statistical categories within Voyager is considered informational only and is totally optional.

For more information about patron statistical categories, see the *Voyager 9.1.1 System Administration User's Guide*, pages 10-94 through 10-95 and the *Voyager 9.1.1 Circulation User's Guide*, pages 4-139 through 4-145.

If the library wishes to convert or create patron statistical categories during the patron conversion, up to 10 statistical category codes can be assigned per patron record. Each patron statistical category code has a maximum of 3 alphanumeric characters. These codes can be translated into Patron Statistical Category Names (maximum 25 alphanumeric characters) within SysAdmin, after the patron conversion has been accepted.

If any statistical category codes are entered in fields 25-34, the codes will be entered into SysAdmin as part of the conversion process. The codes entered are case sensitive, so libraries should be consistent in their use of these codes during conversion. For example, if one converted patron record contains a code of "FR" (without the quotes) in field 25 and a second record contains a code of "Fr," two patron statistical category codes will be added to SysAdmin: FR and Fr.

If the library does not plan to convert or create any patron statistical categories during the patron conversion, fields 25-34 should be blank-filled in each patron record. Patron statistical categories can be added to SysAdmin and used in patron records after the initial conversion to Voyager.

P21. Name Type (field 35)

Each converted patron record must have an entry in field 35 indicating whether the patron record represents an individual person (name type value = 1) or an institution (name type value = 2). The patron conversion program will reject any patron records that do not contain data in the name type field, and therefore any circulation transactions linked to that patron record will also be rejected in the circ conversion(s).

When an individual patron record is assigned a Name type value of 1 (for personal name), then field 37 (First name) is treated as a required field. If the Name type value is set at 2 (for institutional patron), field 37 is an optional field.

This linkage between the name type and requirement for a first name appears to be the only functional issue in Voyager related to these fields in the patron record.

P22. Surname (Field 36)

Each converted patron record must have an entry in field 36 containing a personal patron's (name type = 1) last or family name, or containing the institutional name for non-personal patron records (name type = 2). The patron conversion program will reject any patron records that do not contain data in the surname field, and therefore any circulation transactions linked to that patron record will also be rejected in the circ conversion(s).

(LOCAL) Although the patron SIF says that name suffixes can be inserted in this field (e.g., Jr. or Ph.D.), it should be noted that when patrons log in to My Account or to place requests in WebVoyage or create a VuFind user account, they are required to enter their Last name as additional verification. The last name entered in the public catalog must match exactly the last name as entered in the patron record Surname field. If the patron record contains suffix information in the Surname field, the patron must also enter this information when logging on to WebVoyage, or they will not be allowed to access My Account or to place requests.

P23. First Name (Field 37)

If the name type value (field 35) is set to 1 (for personal), then each converted patron record must have an entry in field 37 representing a personal patron's first name. Any patron records set for name type personal that do not contain data in the first name field will be rejected by the patron conversion program, and therefore any circulation transactions linked to that patron record will also be rejected in the circ conversion(s).

P24. Transaction Counters (Fields 40-51)

(LOCAL) The library has the option to convert some historical patron statistical information from the current system (if applicable) to Voyager.

Some of the data converted in the various transaction counter fields is used by the Voyager system when determining if a patron's circulation privileges should be blocked. If the library is considering converting any of this type of data to Voyager, it is recommended that the library review the *Voyager 9.1.1 Circulation User's Guide*, pages 4-134 through 4-139 when making decisions about these fields in the patron record.

If the library does not want to convert data to any or selected of these fields, then each field for which no "real" data are being converted should be zero-filled in the patron record.

P25. Patron Address(es) (Fields 52-71)

Voyager can support up to 9 addresses per patron record during the conversion. Each address is included in distinct address "segments" (fields 53-71) which are repeated as many times as necessary, up to the maximum of 9. However, only one address segment is required for the conversion.

Each patron record requires a value in the Address count field (field 52). If the library will be converting only one address per patron record, the address count field will always contain a value of 1. When only one address is being converted, then the library needs to populate fields 53-71 only once per record (i.e., each patron record will contain only one address segment).

Any patron records that do not contain data in the address count field (field 52) will be rejected by the patron conversion program, and therefore any circulation transactions linked to that patron record will also be rejected in the circ conversion(s).

For any patron records for which the library will convert more than one address (e.g., some patrons have email addresses in addition to US mail addresses that need to be converted), field 52 must contain the value that represents the total number of addresses included within the record for that patron, and then fields 53-71 are repeated for each distinct address segment.

For example, Library Z's patron A has both a permanent US mail address and an email address that the library wishes to convert to Voyager. For patron A, the value entered in field 52 (address count) will be 2. The converted patron record must then contain two sets of fields 53-71, one for the permanent address and the second for the email address. Not all fields within the address segment (fields 53-71) must be filled in for each type of address. See below for more information on some of the specific fields within the address segment.

Library Z's patron B has only a permanent US mail address to be converted. So, patron B's record will contain a value of 1 in field 52 (address count) and only one set of fields 53-71.

(LOCAL)It is the library's option to convert more than one patron address. To help with this decision, see the *Voyager 9.1.1 Circulation User's Guide*, pages 4-55 through 4-62 for information about how Voyager selects an address for use on overdue and other types of patron notices.

P26. Address ID (Field 53)

For patron conversion loads, this field should be zero-filled in each address segment.

P27. Address Type (Field 54)

Voyager supports three different types of addresses: permanent, temporary, and email. For each address segment included within a patron record, the address type field is a required field.

Any patron records that do not contain data in the address type field (field 54) in the first address segment will be rejected by the patron conversion program, and therefore any circulation transactions linked to that patron record will also be rejected in the circ conversion(s).

If the library is converting multiple address segments, if any patron records do not contain data in the address type field (field 54) in the second through ninth address segments, the additional address segment (not the entire patron record) will be rejected by the patron conversion program.

The library can convert multiple temporary and/or email addresses but each patron record can contain only one permanent address.

See additional information in the address begin and end date section below (P29) about limitations when multiple temporary or email addresses are converted.

P28. Address Status Code (Field 55)

For each address segment that is included in the patron record, the address status code field is a required field. An entry in this field with value H (for hold mail) means that this address will not be used for sending the patron overdue or other notices.

Any patron records that do not contain data in the address status code field (field 55) in the first address segment will be rejected by the patron conversion program, and therefore any circulation transactions linked to that patron record will also be rejected in the circ conversion(s).

If the library is converting multiple address segments, if any patron records do not contain data in the address status code field (field 55) in the second through ninth address segments, the additional address segment (not the entire patron record) will be rejected by the patron conversion program.

(RECOMMENDED) If the address status code entered for the patron's permanent address is converted as H (for hold mail), that patron record cannot be used for circulation transactions or to place requests in the public catalogs. CARLI recommends that libraries enter a value of N (for Normal) for all patron permanent addresses.

(LOCAL) It is the library's decision about setting the address status code to H for temporary or email addresses. To help with this decision, see the *Voyager 9.1.1 Circulation User's Guide*, pages 4-55 through 4-62 for information about how Voyager selects an address for use on overdue and other types of patron notices.

P29. Address Begin and End Dates (Fields 56-57)

For each address segment that is included in the patron record, the address begin date and address end date fields are required fields. The address begin date, combined with the address end date, determine the valid dates for which each address segment can be used to send overdue or other types of notices to the patron.

Any patron records that do not contain data in the address begin and end date fields (field 56-57) in the first address segment will be rejected by the patron conversion program, and therefore any circulation transactions linked to that patron record will also be rejected in the circ conversion(s).

If the library is converting multiple address segments, if any patron records do not contain data in the address begin and end date fields (field 56-57) in the second through ninth address segments, the additional address segment (not the entire patron record) will be rejected by the patron conversion program.

(RECOMMENDED) If the current system does not have equivalent "real" dates to convert for address begin and end dates, the library must put some date information in fields 56 and 57. For the permanent address segment, if no real dates are available, CARLI recommends inserting into each record the date of the patron record extraction in the address begin date (field 56) and the patron expiration date in the address end date (field 57). Libraries should not put a future date in the address begin date (field 56) for the permanent address segment, because the patron record cannot be used for circulation functionality until the permanent address begin date is valid (i.e., it is the date of the circ transaction or a date in the past).

If the library wishes to convert multiple temporary (address type 2) and/or email addresses (address type 3) for the same patron record, the address begin and end dates (fields 56-57) for each type of address cannot overlap.

For example, Library Z wants to convert two different temporary addresses for patron A (e.g., address 1 for the patron's dorm address for the spring semester and address 2 for a different dorm address for the summer semester). This can be done, as long as the address begin and end dates for each of the two temporary addresses do not overlap. So for this example, the begin date for temporary address 1 could be 2012.01.15 and the end date of 2012.05.31. Address 2 has begin date of 2012.06.01 and end date of 2012.08.15. However, temporary address 2 cannot have a begin date of 2012.05.31 since that overlaps with the end date in temporary address 1.

The begin and end dates used for addresses of different types can overlap. Continuing with the example above, if Library Z also wanted to convert a single email address for patron A (in addition to the two temporary addresses), the begin and end dates for the email address can overlap with the temporary address begin/end dates because the email address is a different address type from the temporary address.

So, for example, for Patron A's single email address, the library can assign an address begin date of 2012.01.15 and an address end date of 2012.08.15. However, if Library Z needs to convert two different email addresses for the same patron, the email address segment begin and end dates cannot overlap.

To help with decisions about converting multiple addresses, see the *Voyager 9.1.1 Circulation User's Guide*, pages 4-55 through 4-62 for information about how Voyager selects an address for use on overdue and other types of patron notices.

P30. Address Line 1 (Field 58)

For each address segment that is included in the patron record, the address line 1 field is a required field. The address information can be extended up to 5 address lines total, but address line 1 cannot be blank.

Any patron records that do not contain data in the address line 1 field (field 58) in the first address segment will be rejected by the patron conversion program, and therefore any circulation transactions linked to that patron record will also be rejected in the circ conversion(s).

If the library is converting multiple address segments, if any patron records do not contain data in the address line 1 field (field 58) in the second through ninth address segments, the additional address segment (not the entire patron record) will be rejected by the patron conversion program.

If the library is converting email addresses (address type 3) for any patrons, the email address is placed in address line 1 of the email address segment.

If the library is converting any campus mail address information, be sure to read the Special note about campus mail addresses (section P8) above.

P31. Country (Field 66)

(RECOMMENDED) CARLI recommends that this field be left blank for addresses in the United States.

P32. Phone Numbers (Fields 67-70)

(LOCAL) Phone number fields are optional. It is the library's decision whether to load data into any of the phone number fields in the patron record.

(RECOMMENDED) If the library elects to convert any of the phone number types to Voyager, the conversion program will accept any format of entry in these fields, and the data are loaded as entered in the patron record. Neither the Voyager Circulation client nor the public catalogs will insert any punctuation into phone numbers for display purposes. Therefore, CARLI recommends that if the current system stores phone numbers without punctuation, the data be massaged for conversion so that they contain standard phone number punctuation.

For example, if the system stores phone numbers as a continuous string (e.g., 2172447593), the data should be formatted for conversion to contain hyphens and/or parentheses within the phone number string (e.g., as (217) 244-7593 or 217-244-7593), for display purposes in Voyager.

(RECOMMENDED) As members of a statewide consortium, it is also important to include the area code for any phone numbers added to patron records. Staff in your library may not need the area code, but if your patron borrows material from another library and that library needs to contact your patron by

telephone, they will likely not know what the area code is for your patron. It is helpful to everyone if patron records that include phone numbers also contain the correct area code.

(RECOMMENDED) Similarly, if your campus phone system does not require the full 7 digits of the phone number for on-campus calls, you should still populate the phone number field with the entire phone number, including area code. Staff from libraries other than your own who may wish to contact your patron by phone will need to know the entire phone number, not just the on-campus required digits.

P33. Patron Notes (Field 72)

The patron notes field is optional. Patron notes in Voyager are displayed in the Circulation client only (i.e., they are staff-only notes). The public does not see any data entered in this field via WebVoyage or VuFind.

If the library chooses to not load patron notes (field 72), the Voyager Patron SIF document contains some information that can be confusing in this case. If you do not include note information for a patron record, omit field 72 altogether and end the record as described below:

For patrons with 1 address segment and no note, EITHER byte 886 should be a line feed (\n) OR bytes 886-887 should be a carriage return (\r) and a line feed (\n).

For patrons with 2 address segments and no note, EITHER byte 1315 should be a line feed (\n) OR bytes 1315-1316 should be a carriage return (\r) and a line feed (\n).

For patrons with 3 address segments and no note, EITHER byte 1744 should be a line feed (\n) OR bytes 1744-1745 should be a carriage return (\r) and a line feed (\n).

Continue the pattern described above for as many address segments as are included in a patron record, to determine the bytes for the end of record marker.

(Section C) Charge Transaction Records

C1. Migrating Circulation Records

(RECOMMENDED) Each new I-Share library has the option to extract and convert charge and renewal transaction records to Voyager. This conversion is included in the I-Share contract with ExL, and so there is no additional fee from Ex Libris for converting charges/renewals. For the sake of item availability information to both the public and staff, CARLI recommends that libraries use this Voyager conversion option, if the charge and/or renewal information can be extracted from the current system.

C2. Formats for Circulation Records Being Migrated

(LOCAL) If the library elects to convert charge and renewal transaction records, there are two options for the format of the extracted circulation data. It is the library's decision on which option to use for the initial conversion.

Option 1: The data may be extracted using the requirements as detailed in Ex Libris' Charge Transaction Record Standard Interface File (SIF). This SIF is available within the *Voyager 9.1.1 Technical User's Guide*, chapter 20 or from the CARLI website at <http://www.carli.illinois.edu/sites/files/i-share/documentation/secure/chargeSIF.pdf>

Option 2: If it is not possible for circulation data to be extracted in the Ex Libris Charge Transaction Record SIF format, the data can be delivered to Ex Libris as a single file with delimited fields representing the same data as that found in the SIF. This option usually is done in the form of an Excel spreadsheet with each row representing an individual charge/renewal transaction record, and each column representing a distinct data element for the circ record.

If this option is used, it is the library's responsibility to provide Ex Libris with a map detailing how the data elements of the delimited circ record are to be mapped to the circ SIF format (e.g., where the patron barcode is located in the delimited circ record, and so forth for all the data elements included in the extract). If this option is used, all of the fields marked as required in the SIF must be present in the delimited file.

C3. Data to Include in the Circulation Migration

If the library elects to convert charge and renewal transaction records, the extract should include only items currently charged out at the time of the extract. Historical information that links individual patrons to items not currently charged is not converted to or retained in I-Share Voyager databases, for patron privacy purposes.

Note that during the data review process for circ transactions, the only item status that will normally show in the circ client is Charged. Statuses of Renewed, Overdue, Lost-System Applied, etc. normally get applied by a batch job that CARLI staff do not run for the test loads, but will be run the night that the library accepts their production circulation load.

That said, technically, as part of the circ load the item status of Overdue will be applied if the "Overdue Notice Field" in the charge transaction SIF record is set to a value greater than zero. Similarly, the item status of Renewed will be applied if the charge transaction record includes the Renew date. In most previous circ loads, these fields were not populated in the library's extracted data, and so the only circulation status that displays during the circ data review process is Charged.

C4. When to Extract the Circulation Data Being Migrated

(RECOMMENDED) For the production charge transaction load, it is recommended that libraries extract their data after the close of business the day before the load is scheduled and that they FTP the data to Ex Libris either that evening or as early in the morning as possible on the day of the load. Libraries should review and accept (if appropriate) the production load that same day, to minimize the circulation data gap period as much as possible.

C5. Opting Not to Migrate Circulation Data

Having accurate item status displays in the OPAC for all materials is very important in the I-Share environment. If the library cannot convert charge transactions for any reason, it is expected that the library will run reports on the current library system before or on the last day the library is using that system for circulation, to identify which items are charged to which patrons. The library will then need to manually charge all items to the correct patrons as soon as the library is “live” in production Voyager circulation. Libraries that opt to not do circ conversions are considered to be live on Voyager circ for production as soon as the patron load is accepted and the library has done their Circulation System Administration profiling.

APPENDIX A: Voyager Item Types, Location Codes and the ABBA Table

About the ABBA Table (the Voyager Location Code/Item Type Mapping Table)

1. Check your project timeline for the due date for your ABBA table.
2. Each new I-Share library must map its current system's holding locations and item type information to Voyager locations and item types. You will create a mapping table, in an Excel spreadsheet, for the conversion programs to use. Ex Libris calls it the "Location Load Mapping Table" or the "Voyager Location Code/Item Type Mapping Table," or, the "ABBA" table.
3. The bibliographic/MFHD/item record load process will create your library's Voyager database. The ABBA mapping tables will inform the load program, so what you map here will directly affect the initial structure and integrity of your library's data in Voyager.
4. Your library should not use more item types than what you need to describe and manage your collection. The more item types you use, the more complex and time-consuming your library's Voyager System Administration ("SysAdmin") set-up and maintenance will become. SysAdmin for circulation contains a matrix of locations (grouped into policy groups), item types, and patron groups. The more of each of these elements you create in your data conversion process, the more your SysAdmin work expands.
5. After you review and accept your final bib/authority/MFHD/item conversion loads, your database becomes a production database. At that time, your library staff will enter more profiling data in the Voyager SysAdmin client. For example, for each Voyager location code in the conversion program creates by loading bib, MFHD and item records, library staff will use the SysAdmin client to define the location name that will display in the public catalog and in many areas of the Voyager staff clients.

Voyager Item Type Principles

About Item Types

Voyager uses item types, in combination with location/policy groups and patron groups, to determine loan periods, renewal periods, fine intervals and rates, recall loan periods, and replacement costs. In general, item types correspond to the physical format of materials (book, map, recording, etc.).

I-Share Standard Item Types

CARLI requires new I-Share libraries to select from an I-Share-standard list of Voyager item types when they complete their ABBA table mapping. Please see the list of I-Share item types in Appendix B of this document. Using this standard list of item types will simplify both the mapping process itself, and the data verification phase of the project. If you need an item type that you do not find on the I-Share list, contact CARLI to discuss your need.

Because a library may want to define more than one loan period to the same patron for items of the same format that they store in the same location (for instance, one general Stacks book might circulate to a patron for one week and another general Stacks book might circulate to the same patron for four weeks), CARLI established several format variants as item types: three for different loan periods, plus a Noncirc, a Request Exempt, and a Local Request variant. (Note that the settings that cause items to be non-

circulating, request exempt, or local request are actually made in SysAdmin. The noncirc, etc. item type codes are a convenient, consortially-established naming convention.)

Which Item Types to Use

Remember to use only the item types you need for your library's collection. When you charge other I-Share libraries' materials to your patrons, even in your own library, the I-Share standard Universal Borrowing (UB) policies will take effect. Also, Voyager Universal Borrowing will refer to the owning library's SysAdmin policies to determine whether an item is eligible for UB requesting. Consequently, you only need to define item types that you actually hold in your collections; you do not need to define item types for what other libraries hold. You do not have to and probably will not use all of the codes on the I-Share list.

Item Type Format

The Voyager holdings conversion load program is case sensitive, so you must specify items types exactly as you see them in the item type list. You may want to copy from the list in Appendix B and paste into the Excel spreadsheet that contains your ABBA table.

Item Types and Display

Item type codes never display to the public. Item type names (defined later in SysAdmin) will display in the WebVoyage public catalog, but only on the patron's "My Account" page, where CARLI has added help text that says, "Item Type' is . . . usually useful only to library staff." Other than that, whenever WebVoyage displays information about the physical format of materials, it takes that information from the bibliographic record, not the item record's item type. Item type names do not display in the VuFind public catalog at all.

After the production bib loads, libraries will translate item type codes in SysAdmin into item type names that will display in staff clients and, as described above, on the WebVoyage My Account page. Library A could translate the code Book1 to an item type name of "Book 16-4W" (to describe books that circulate to some patrons for 16 weeks, and to other patrons for 4 weeks) and Library B could translate the same code Book1 to the simpler item type name "Book" (if they felt no need to signal to staff anything distinctive about books with that item type). Item type names are set at the database level in SysAdmin, not at the location or policy group level within a database, so the library as a whole needs to agree on the item type names.

Voyager staff clients always present item types in a drop-down menu of item type names, so staff never have to enter item type codes manually.

Item Types and Loan Policies

As the example item type name "Book 16-4W" suggests, item types can represent multiple possible loan period outcomes. Libraries will set values in SysAdmin that determine the loan period for each item types for each patron group. So, to pursue the same example, the library can configure SysAdmin so that faculty and staff can borrow Book1 items for 16 weeks, while undergraduates can borrow Book1 items for 4 weeks.

Again, libraries should map item types based on their actual policies and collection configuration. The mapping process may allow you to do some data cleanup as part of the conversion. A report against the data in your current system might show that you have 10,000 items in your Stacks with an item type of Book 1W, for instance, but 5 items in your Stacks with an item type of Book 3Days. If you know that your library does not have a policy supporting 3-day loans on any stacks items, you would probably assume these items are in error. Instead of creating a 3-day loan period item type in Voyager, which you know you don't want to use, you could map these items into the correct item type at the time of

conversion, if it is obvious what the correct item type should be. Another option could be to map the rogue Book 3Days items to the “Error” item type and to correct the records later, after the data are loaded in Voyager.

Item Types and the ABBA Table

CARLI strongly recommends that you run a report against your current system to identify all item types you currently use in your item records, and that you make sure to account for each of these item types (in combination with locations) in the ABBA table. During the item record load, if the conversion program encounters an item type for which the ABBA table does not account, the program will assign the library-defined item type default value (usually “Error”).

Voyager Location Code Principles

Location Codes and the Union Catalog

I-Share libraries can establish Voyager location codes to suit their needs. The I-Share Union Catalog distinguishes holdings from different institutions by the Voyager database name that it includes in the display, not location codes. This means location codes do not need to be unique across the consortium.

Location Code Format

The Voyager location code has a 10-character limit, including spaces and punctuation. The conversion load program is case sensitive, so, as with item types, you must be consistent in the way you assign location codes in the ABBA table. For example, entries of “Main” and “main” in the ABBA table will result in the creation of two different location codes in Voyager, items will be mapped to these two locations accordingly, and the library will need to profile for both locations in SysAdmin.

CARLI recommends that I-Share libraries use lower case (“main”) or Sentence Case (“MainLib”) for storage/shelving location codes. Voyager also has the concept of “happening locations” (that is, locations where staff do work or where patrons transact business)) that you will add to SysAdmin after you accept the production conversion load. To simplify SysAdmin work, CARLI recommends that libraries use UPPER CASE (“CIRCDESK”) for their happening location codes and happening location names, to distinguish them from shelving locations. Do not include happening locations in the ABBA table.

Location Codes and Display

You will use Voyager SysAdmin to translate the location codes that the conversion load creates into location names that display in the Voyager staff clients (25-character limit, including spaces and punctuation), and in the OPAC (60-character limit, including spaces and punctuation). If you do not define an OPAC display name in SysAdmin, WebVoyage and VuFind use the location name in some situations and leave a blank in others. You can change location names and OPAC display names easily, post-conversion; you cannot change location codes, post-conversion, although you can add new location codes relatively easily.

In WebVoyage, when a bibliographic record has more than one MFHD attached to it, the display order of locations is alphabetical by the location name or OPAC display name within a given database, rather than by location code.

Voyager staff clients usually present locations as a list of location names in a drop down menu. But in the Cataloging client, staff can manually type the location code in the MFHD 852 \$b, or staff can use a

keyboard command to get a list of location names from which to choose. If staff do not enter the location code exactly correctly when they edit a MFHD location code directly (if they forget to insert a blank space or to use upper and lower case, for instance), Voyager validation will prevent the erroneous location code from being saved and staff will have to re-enter a valid location code. Keep options for manual data entry in mind when you define location codes in the ABBA table, for the conversion program to create in Voyager. CARLI recommends that you keep location codes as simple as possible (all lower-case with no punctuation or spaces is best), while still allowing the codes to be distinguishable from each other.

Location Codes and Voyager Policy Groups

In SysAdmin you will group locations into “policy groups” to manage profiling. You can establish different circulation policy groups if different branches/department libraries, etc. have different loan periods, fine rates, etc. A single location can be profiled into only one circulation policy group. There are also SysAdmin policy groups for cataloging and acquisitions that are used primarily to determine staff security options in those clients (for example, staff can order for or receive materials for only the locations defined in their Acq policy group).

Libraries should keep in mind the concept of policy groups (groups of locations with similar policies) and particularly circulation policy groups, when mapping item types and locations. For example, if your Law Library has different circulation policies from your Main Library, you will probably establish two separate policy groups for Law and Main in Voyager. Then in the location/item type mapping for the Law policy group you can define Book1 to represent books that circulate to faculty for 16 weeks, while in Main policy group you can define Book1 to represent books that circulate to faculty for 12 weeks. You would not need to use a different item type code for Law and Main to establish different loan policies, as long as Law and Main locations were in separate policy groups. If you have only one circulation policy group per library, then the Book1 item type must be treated the same way in all locations in the library (although it could be treated differently for each patron group).

Non-circulating Materials

In Voyager, “non-circulating” is treated as a loan policy rather than as an item status. Loan period rules (for instance that noncirc item types have a 0 day loan period) and request rules (that disallow requests on noncirc items) are defined in SysAdmin for each policy group. Since it may also be important for the library to convey to the public that everything in certain locations is non-circulating, you might include some kind of noncirc designation in the location name when appropriate: “Audio Visual Room – Non circulating”.

If a particular shelving location contains only non-circulating items, the code “ref” for instance, could be translated into the location name “Reference Desk – Non-Circulating,” for display in the public catalogs. On the other hand, if a single shelving location in the current system includes by policy both circulating and non-circulating materials, the library may wish to map these into two different locations in Voyager, one for circulating and the other for non-circulating items (into, for instance, location codes audio and audioN). You would accomplish this (if possible based on the current system’s use of an item type equivalent) by using different item type codes in combination with the location code in the ABBA table.

Materials on Reserve

Most libraries converting to Voyager have items in the current system that represent Reserve materials. Sometimes these items are considered Permanent Reserves, but a more common practice is that the items

are part of the regular collection that are put on reserve for a defined time period (e.g., one semester), and then revert back to the regular collection until a later time when they are put on reserve again.

Voyager supports similar functionality. When an item is processed in the Voyager circulation client to be put “On Reserve”, it gets a temporary location (e.g., Reserve Desk) and a temporary item type (e.g., 1 hour Reserve).

This means that during the data migration process, you should only try to map to Reserve item types or Reserve location codes those materials that you are certain represent Permanent Reserves. If you don’t have a way to in your current system to identify Permanent Reserves vs. Temporary Reserves, CARLI recommends that you map these materials to a non-Reserves location/item type, and then create the structure for Permanent Reserves once you are live on Voyager.

Location Codes and the ABBA Table

When you define Voyager location codes in the ABBA table, remember that the item type does not display in the OPAC in conjunction with location names. So, if your library needs to distinguish locations by physical medium (if you have an AV collection with a sublocation for CDs and a sublocation for DVDs, for instance), you may need to create separate location codes for each medium in your ABBA table mapping, using the item type in the mapping to distinguish between the different sublocations. On the other hand if you have an AV collection that contains CDs and DVDs, you might decide your patrons will be able to find what they need within a single Voyager location (an “av” location code, which you will translate to the name “AV Room”). This level at which you distinguish Voyager location codes is completely at your discretion.

Depending on the current system’s capabilities, it may also be possible to combine item status with item type and location in the ABBA table, so that only items with the current status of non-circulating are mapped to a location code for non-circulating materials. If libraries wish to attempt this, they must confer with Ex Libris staff.

CARLI strongly recommends that you run a report against your current system to identify all location codes you currently use in your item records, and that you make sure to account for each of these locations (in combination with item type) in your ABBA table. During the item record load, if the conversion program encounters a location code for which the ABBA table does not account, the program will assign the item to the library’s default location code (usually “error”).

Editing the ABBA Table

Format of the ABBA Table

Each library must supply Ex Libris with an Excel worksheet, containing 4 columns, that represents the ABBA table. Contained in this worksheet should be every combination of location and item type in use in the current system, and the new Voyager location code and item type to which these values will map.

The first row in the table should contain the words “review” in both Columns A and B. The entries added to Columns C and D will represent the default Voyager item type and location for any items processed by the conversion load program that do not match the other lines in the table (i.e., anything that falls through the cracks). Libraries must enter a default value in columns C and D in the first line of the table (i.e., a “review” row is required in each ABBA table).

Sample ABBA Table

More detailed information about the sample table below can be found on the CARLI website at:
<http://www.carli.illinois.edu/products-services/i-share/newmem/abba-sample>

	A	B	C	D
1	Old Location	Old Material Code	Voyager Item Type	Voyager Location
2	review	review	Error	main
3	stx	BK Nocir	BookN	main
4	stx	BK 16/8/4W	Book1	main
5	stx	Unknown	Error	main
6	ref	BK Nocir	BookN	ref
7	ref	BK 16/8/4W	Error	ref
8	per	SERNocir	SerialN	serials
9	big	BK Nocir	BookN	ref/oversz
10	big	BK 16/8/4W	Book1	oversize
11	avx	BK Nocir	Error	av
12	avx	BK 16/8/4W	Book1	av
13	avx	SER 1W-NO	AVLR	av
14	avx	AV 1W-1D	AVLR	av
15	off	BK Nocir	BookN	liboffice

- It is recommended that libraries do not duplicate item type codes as location codes. Keeping the codes unique helps minimize confusion in client views.

APPENDIX B: I-Share Standard List of Voyager Item Type Codes

For each physical medium represented in the list below, the code N at the end of the item type represents Non-circulating; the code RE represents Request Exempt; the code LR represents Local Request.

- Non-circulating means the item is normally profiled for a loan period of 0 (zero) days.
- Request Exempt means the item is normally profiled so that no requests for the item can be placed by any patrons, including the library’s own patrons.
- Local Request means the item is normally profiled so that requests for this item can be placed only by patrons affiliated with the library that holds the item in its collection.

Note that due to the 10-character limit on these item type codes, the codes for Recording are abbreviated when followed by RE and LR, and the codes for Electronic are also abbreviated. Be certain to use the correct spelling, punctuation, and case for each code below in the data you enter in Column C of the ABBA table.

Book1	Micro1	Reserve7
Book2	Micro2	Reserve8
Book3	Micro3	ReserveN
BookN	MicroN	Realia1
BookRE	MicroRE	Realia2
BookLR	MicroLR	Realia3
Serial1	Score1	RealiaN
Serial2	Score2	RealiaRE
Serial3	Score3	RealiaLR
SerialN	ScoreN	Archive1
SerialRE	ScoreRE	Archive2
SerialLR	ScoreLR	Archive3
AV1	Map1	ArchiveN
AV2	Map2	ArchiveRE
AV3	Map3	ArchiveLR
AVN	MapN	Electronic1
AVRE	MapRE	Electronic2
AVLR	MapLR	Other1
Recording1	Software1	Other2
Recording2	Software2	Other3
Recording3	Software3	OtherN
RecordingN	SoftwareN	OtherRE
RecordingRE	SoftwareRE	OtherLR
RecordingLR	SoftwareLR	Error
Video1	Reserve1	
Video2	Reserve2	
Video3	Reserve3	
VideoN	Reserve4	
VideoRE	Reserve5	
VideoLR	Reserve6	

APPENDIX C: I-Share Patron Group Codes and Names

The table below lists the I-Share standard Voyager patron group codes and the default name/translation of the codes. Libraries may use any of these patron groups that are appropriate for their circulation policies. However, libraries may not create new patron groups outside of the list below without approval from CARLI, due to Universal Borrowing patron mapping requirements.

During the patron record conversion, any patron group codes used in individual records will be automatically added to a library's database and the codes are added to SysAdmin. After conversion, libraries will need to create patron group names for the codes as well as create the circulation policy matrices that rely on the patron group codes to establish loan periods, etc.

Library staff will need to work with their local computing staff to determine how these codes will be assigned in a SIF file of patron data for batch loading. The library should only use those patron group codes that are needed to support local circulation policies. Libraries will likely not need to use all of the patron groups below.

If the library is supplying patron records in a delimited file rather than using the Ex Libris Patron SIF format, the library will need to supply a mapping table to translate their current patron group codes into the I-Share codes described below.

I-Share Patron Group Codes	"Definition"	Additional info
AA	Affiliated Organization, Academic	
AE	Academic Employee	
AL	Alumni	
AO	Affiliated Organization, Other	
AS	Affiliated Organization, Staff	
EF	Emeritus Faculty	
EG	Extramural Graduate student	
EU	Extramural Undergraduate Student	
FC	Faculty	
GA	Graduate Assistant	
GR	Graduate Student	
GS	State Government Staff	
GV	State Government Official	
HS	High School Student	
II	International ILL	
IL	Interlibrary Loan	
IN	ILLINET Library	For CARLI Office use only; do not map to this patron group code during conversion
LB	Local Building Use Only	Community borrowers; cannot request from other libraries
LH	Local Patron High Privileges	Community borrowers; cannot request from other libraries
LL	Local Patron Low Privileges	Community borrowers; cannot request from other libraries

Voyager Data Conversion Information for
New I-Share Libraries

I-Share Patron Group Codes	“Definition”	Additional info
LS	Library staff	
LU	Library Use Only	
PH	Permit Patron High Privileges	Special Community borrowers
PL	Permit Patron Low Privileges	Special Community borrowers
PP	Problem Patron	Blocked privileges; cannot request from other libraries
RE	Retired	
SS	Support Staff	
SY	Regional Library Systems	For CARLI Office use only; do not map to this patron group code during conversion
UG	Undergraduate Student	