WHAT IS A MARC RECORD, AND WHY IS IT IMPORTANT?

It is impossible these days to read a library journal, attend a library conference, or even have an informal chat with other librarians without hearing the phrases "MARC format," "MARC records," or "MARC-compatible." Many library professionals have not had an opportunity to take formal courses explaining the important topics of library automation and the role of MARC, yet automated library systems may be important parts of their libraries.

This booklet will explain -- in the simplest terms possible -- what a MARC record is, and it will provide the basic information needed to understand and evaluate a MARC record.

Part I:

What Does MARC Mean?

What is a MARC record? A MARC record is a MA chine-Readable Cataloging record.

And what is a machine-readable cataloging record?

Machine-readable: "Machine-readable" means that one particular type of machine, a computer, can read and interpret the data in the cataloging record. The following pages will explain why this is important and how it is made possible.

Cataloging record: "Cataloging record" means a bibliographic record, or the information traditionally shown on a catalog card. The record includes (not necessarily in this order): 1) a description of the item, 2) main entry and added entries, 3) subject headings, and 4) the classification or call number. (MARC records often contain much additional information.)

1) Description: Librarians follow the rules in *Anglo-American Cataloguing Rules*, 2nd ed., 2002 revision to compose the bibliographic description of a library item. This "description" is shown in the paragraph sections of a card. It includes the title, statement of responsibility, edition, material specific

details, publication information, physical description, series, notes, and standard numbers.

2) Main entry and added entries: AACR2 also contains rules for determining "access points" to the record (usually referred to as the "main entry" and "other added entries"), and the form these access points should take. Access points are the retrieval points in the library catalog where patrons should be able to look up the item.

In other words, the rules in AACR2 are used to answer questions such as: For this book, should there be entries in the catalog for more than one author or more than one title? Should the title of the series be noted? How should the author's name be written? Is this a "title main entry" item (no author)?

3) Subject headings (subject added entries): The librarian uses the *Sears List of Subject Headings* (Sears), the *Library of Congress Subject Headings* (LCSH), or some other list of standard subject headings to select the subjects under which the item will be listed. Use of an approved list is important for consistency, to ensure that all items on a particular subject are found under the same heading and therefore in the same place in the catalog.

For instance, the subject heading list indicates that all books about cats should be assigned the subject CATS. Using this authorized heading eliminates the possibility of listing some books under CATS and others under FELINES. Even if a book is called *All About Felines*, the subject heading will be typed CATS. That way, all books on that subject will be listed in one place in the catalog for the patron to find. The patron does not have to imagine all the possible synonyms for the word he is looking for.

4) Call number: The librarian uses a Dewey Decimal or Library of Congress classification schedule to select the call number for an item. The purpose of the call number is to place items on the same subject together on the same shelf in the library. Most items are sub-arranged alphabetically by author. The second part of the call number usually represents the author's name, facilitating this subarrangement.

Part II:

Why Is a MARC Record Necessary?

Why can't a computer just read a catalog card? The information from a catalog card cannot simply be typed into a computer to produce an automated catalog. The computer needs a means of interpreting the information found on a cataloging record. The MARC record contains a guide to its data, or little "signposts," before each piece of bibliographic information.

The place provided for each of these pieces of bibliographic information (author, title, call number, etc.) is called a "field." The records in simpler computer files sometimes have a fixed number of fields, and each field contains a fixed number of characters.

However, to allow proper cataloging of books and other library items, the best file structure allows for records with an unlimited number of fields and unlimited field lengths. This flexibility is necessary because not all titles are the same length (*The robe* versus *Alexander and the terrible, horrible, no good, very bad day*). Some books are part of a series, requiring a field for that information, while others have no series statement. And audiovisual items have much longer physical descriptions (5 filmstrips : sd., col. ; 35 mm. + teaching manual) than do most books (403 p. : ill. ; 22 cm.).

The computer cannot expect a certain type of information to begin and end at the same position in every bibliographic record. The statement of responsibility will not always begin with the 145th character of the record and end at the 207th position, for example. Therefore each MARC record contains a little "table of contents" to the record, according to a predefined standard.

Data "signposts:" The computer must have assistance if it is to read and interpret the bibliographic record. The box charts on the right illustrate the information these "signposts" need to convey.

If a bibliographic record has been marked correctly and saved in a computer data file, computer programs can then be written to punctuate and format the information correctly for printing a set of catalog cards, or for displaying the information on a computer screen. Programs can be written to search for and retrieve certain types of information within specific fields, and also to display lists of items meeting the search criteria.

Why one standard? You could devise your own method of organizing the bibliographic information, but you would be isolating your library, limiting its options, and creating much more work for yourself. Using the MARC standard prevents duplication of work and allows libraries to better share bibliographic resources. Choosing to use MARC enables libraries to acquire cataloging data that is predictable and reliable. If a library were to develop a "home-grown" system that did not use MARC records, it would not be taking advantage of an industry-wide standard whose primary purpose is to foster communication of information.

Using the MARC standard also enables libraries to make use of commercially available library automation systems to manage library operations. Many systems are available for libraries of all sizes and are designed to work with the MARC format. Systems are maintained and improved by the vendor so that libraries can benefit from the latest advances in computer technology. The MARC standard also allows libraries to replace one system with another with the assurance that their data will still be compatible.

MARC 21: The Library of Congress serves as the official depository of United States publications and is a primary source of cataloging records for US and international publications. When the Library of Congress began to use computers in the 1960s, it devised the LC MARC format, a system of using brief numbers, letters, and symbols within the cataloging record itself to mark different types of information. The original LC MARC format evolved into MARC 21 and has become the standard used by most library computer programs. The MARC 21 bibliographic format, as well as all official MARC 21 documentation, is maintained by the Library of Congress. It is published as *MARC 21 Format for Bibliographic Data*.

A comparison of the same record with textual information and with MARC tags illustrates the compactness of the MARC 21 format. It's a matter of storage space. Look at the box charts below . The MARC 21 format uses "260" "$a" "$b" and "$c" to mark the field that holds imprint data instead of storing the words "publication area," "place of publication," "name of publisher," and "date of publication" in each record. This convention makes more efficient use of computer storage space.

Record with textual "signposts"

"SIGNPOSTS"	DATA
Main entry, personal name with a single surname: The name:	Arnosky, Jim.

Title and Statement of responsibility area, pick up title for a title added entry, file under "Ra..."
    Title proper:
 	
    Statement of responsibility:
	Raccoons and ripe corn /
	Jim Arnosky.

Edition area: Edition statement:	1st ed.

Publication, distribution, etc., area:
    Place of publication:
    Name of publisher:
 	
    Date of publication:
	New York :
	Lothrop, Lee & Shepard Books,
	c1987.

Physical description area:	25 p. :
Pagination: Illustrative matter: Size:	col. ill. ; 26 cm.
Note area: Summary:	Hungry raccoons feast at night in a field of ripe corn.
Subject added entries, from Library of Congress subject heading list for children: Topical subject:	Raccoons.
Local call number:	599.74 ARN
Local barcode number:	8009
Local price:	$15.00

Same record with MARC tags

"SIGNPOSTS"	DATA
100 1# $a	Arnosky, Jim.
245 10 $a	Raccoons and ripe corn /
$c	Jim Arnosky.
250 ## $a	1st ed.
260 ## $a	New York :
$b	Lothrop, Lee & Shepard Books,
$c	c1987.
300 ## $a	25 p. :
$b	col. ill. ;
$c	26 cm.
520 ## $a	Hungry raccoons feast at night in a field of ripe corn.
650 #1 $a	Raccoons.
900 ## $a	599.74 ARN
901 ## $a	

903 ## $a	8009
	$15.00

Part III:

MARC Terms and Their Definitions

This section covers how to read, understand, and use a MARC record. It deals with what librarians using a library automation system will see and need to understand on their computer screens when adding, editing, or examining records. The emphasis will be on those areas commonly used in cataloging for schools and small public libraries, i.e. books and audiovisual materials. However, what is covered in this section applies equally to all forms of materials, including sound recordings, computer software, maps, and other non-book items.

Recently approved changes, some of which have already been implemented, to the MARC 21 bibliographic format have involved the concept of Format Integration. "Format Integration" means that the same "signposts" are used to mark data in records for all types of publications, rather than having different sets of "signposts" for each type. More technically, under Format Integration, one group of tags is used for records of all types of materials rather than having a tag set defined for each type.

The box chart in the previous section showed a MARC record labelled with "signposts." The proper names of these "signposts" are *field*, *tag*, *indicator*, *subfield*, *subfield code*, and *content designator*. These MARC 21 terms are covered in this section.

1. FIELDS are marked by TAGS.

A field: Each bibliographic record is divided logically into fields. There is a field for the author, a field for title information, and so on. These fields are subdivided into one or more "subfields." As previously noted, the textual names of the fields are too lengthy to be reproduced within each MARC record. Instead they are represented by 3-digit tags. (Though online catalogs may display the names of the fields, the names are supplied by the system software, not by the MARC record.)

A tag: Each field is associated with a 3-digit number called a "tag." A tag identifies the field -- the kind of data -- that follows. Even though a printout or screen display may show the tag immediately followed by indicators (making it appear to be a 4- or 5-digit number), the tag is always the first 3 digits.

The tags used most frequently are:

010 tag	marks the **Library of Congress Control Number** (LCCN)
020 tag	marks the **International Standard Book Number** (ISBN)
100 tag	marks a **personal name main entry** (author)

245 tag	marks the **title information** (which includes the title, other title information, and the statement of responsibility)
250 tag	marks the **edition**
260 tag	marks the **publication information**
300 tag	marks the **physical description** (often referred to as the "collation" when describing books)
490 tag	marks the **series statement**
520 tag	marks the **annotation or summary note**
650 tag	marks a **topical subject heading**
700 tag	marks a **personal name added entry** (joint author, editor, or illustrator)

Here is an example of a field. The number 100 is the tag, defining it as a personal name main entry (author) field.

```
        100 1#   $a Pirsig, Robert M.
```

The Cataloging Distribution Service of the Library of Congress distributes a detailed listing of all tags in both the 2-volume publication *MARC 21 Format for Bibliographic Data* and a summarized single volume work entitled *MARC 21 Concise Formats*. For continued work with MARC records, these sets are highly recommended. They are detailed documents containing many examples. (See the bibliography for complete reference.)

In the MARC record, 10% of the tags are used over and over, and the other 90% are seen only occasionally or rarely. After even a short exposure to the MARC 21 format, it is not unusual to hear librarians speaking in "MARCese." Librarians who work with MARC records soon memorize the numbers for the fields common to the materials they catalog.

An outline of those 10% of the tags which are used most frequently is included with this brochure in Part VII. A brief list of some of the other tags is included in Part VIII.

2. Some fields are further defined by INDICATORS.

Indicators: Two character positions follow each tag (with the exception of Fields 001 through 009). One or both of these character positions may be used for indicators. In some fields, only the first or second position is used; in some fields, both are used; and in some fields, like the 020 and 300 fields, neither is used. When an indicator position is not used, that indicator is referred to as "undefined" and the position is left blank. It is the convention to represent a blank, or undefined, indicator position by the character "#".

Each indicator value is a number from 0 to 9. (Although the rules say it can be a letter, letters are uncommon.) Even though two indicators together may look like a 2-digit number, they really are two single-digit numbers. The allowable indicator values and their meanings are spelled out in the MARC 21 documentation. In the example which follows, the first 3 digits are the tag

(245 defines this as a title field) and the next 2 digits (a 1 and a 4) are indicator values. The 1 is the first indicator; 4 is the second indicator.

```
245 14    $a The emperor's new clothes /
          $c adapted from Hans Christian Andersen
             and illustrated by Janet Stevens.
```

A *first indicator* value of 1 in the title field indicates that there should be a separate title entry in the catalog. In the card catalog environment, this means that a title card should be printed for this item and an entry for "Title" added to the tracings. A first indicator value of 0 would mean that a title main entry is involved; the card would be printed with the traditional hanging indention, and no additional tracing for the title would be required (since it is the main entry).

Nonfiling characters: One of the more interesting indicators is the second indicator for the title field. It displays the number of characters at the beginning of the field (including spaces) to be disregarded by the computer in the sorting and filing process. For the title *The emperor's new clothes*, the second indicator is set to "4" so that the first four characters (the "*T,*" the "*h,*" the "*e,*" and the space) will be skipped and the title will be filed under "*emperor's.*"

3. SUBFIELDS are marked by SUBFIELD CODES and DELIMITERS.

A subfield: Most fields contain several related pieces of data. Each type of data within the field is called a **subfield**, and each subfield is preceded by a **subfield code**. Fields 001 through 009 have no subfields.

For example, the field for a book's physical description (defined by the tag 300) includes a subfield for the extent (number of pages), a subfield for other physical details (illustration information), and a subfield for dimensions (centimeters):

```
300 ##    $a 675 p. : $b ill. ; $c 24 cm.
```

A subfield code: Subfield codes are one lowercase letter (occasionally a number) preceded by a delimiter. A delimiter is a character used to separate subfields. Each subfield code indicates what type of data follows it. (For each field in the MARC 21 bibliographic format, the MARC 21 documentation lists and describes the valid subfield codes.)

A delimiter: Different software programs use different characters to represent the delimiter on the screen or on printouts. Examples are a double dagger (‡), an "at sign" (@), a dollar sign ($), an underline (_), or the graphic symbol "‡". In this publication the dollar sign ($) is used as the delimiter portion of the subfield code.

In the example above, the subfield codes are **$a** for the extent, **$b** for other physical details, and **$c** for dimensions.

4. CONTENT DESIGNATORS is an inclusive term used to refer to tags, indicators, and subfield codes.

The three kinds of content designators -- tags, indicators, and subfield codes -- are the keys to the MARC 21 notation system. In his book, *MARC for Library Use* (2nd ed. (Boston: G.K. Hall & Co., 1989), p. 5), Walt Crawford calls the MARC system a "shorthand notation" system. The three types of content designators are the shorthand symbols that label and explain the bibliographic record.

5. Some GENERAL RULES.

There are some general rules that help define what all the numbers used as field tags mean. Please note that in discussions of MARC 21 tags, the notation XX is often used to refer to a group of related tags. For example, 1XX refers to all the tags in the 100s: 100, 110, 130, and so on.

A. Tags divided by hundreds. The basic divisions of the MARC 21 bibliographic record are:

0XX	Control information, numbers, codes
1XX	Main entry
2XX	Titles, edition, imprint (in general, the title, statement of responsibility, edition, and publication information)
3XX	Physical description, etc.
4XX	Series statements (as shown in the book)
5XX	Notes
6XX	Subject added entries
7XX	Added entries other than subject or series
8XX	Series added entries (other authoritative forms)

The 9XXs have been left for locally-defined uses, such as local barcode numbers. Local libraries, vendors, or systems can define and use them for attaching other types of information to records. (X9Xs in each of these groups -- 09X, 59X, etc. -- are also reserved for local use, except 490.)

The list of the most common tags shows how each fits into one of these divisions: 100 is an author main entry, 520 is a summary note, and so on.

B. Access points: Access points (a main entry, subject added entries, and other added entries) are an important part of the

bibliographic record. These are the headings for which separate cards were created for the traditional card catalog, and which a patron or librarian can search in an online catalog. Most of the access points are in:

1XX fields (main entries)
4XX fields (series statements)
6XX fields (subject headings)
7XX fields (added entries other than subject or series)
8XX fields (series added entries)

These are the fields that are under authority control.

"Authority control" means following a recognized or established form. Usually, a cataloger chooses subject and name headings from a list of approved headings. In a conversation, if you talked about visiting the "Getty Museum" and the "J. Paul Getty Museum" in California, your listener would know you meant the same thing. But if a cataloger sometimes uses "Getty Museum" and other times uses "J. Paul Getty Museum" as headings in a catalog, the library user will have a difficult time finding all the books on that subject. If a cataloger follows the Library of Congress's list of established forms for names, he or she will use the heading "J. Paul Getty Museum." As long as the cataloger always uses one established form, all the books on that museum will be found in one place in the catalog.

For names, the best authority is the Library of Congress Name Authority file. This file is available in machine-readable format from the Cataloging Distribution Service (CDS) of the Library of Congress or online at http://authorities.loc.gov. The form of the name used (personal name, corporate name, conference or meeting name, series title, or uniform title) can be checked against this authority.

For topics or geographic names, the common subject authority lists are the *Library of Congress Subject Headings* or the *Sears List of Subject Headings*. The form of a subject heading should match one on the list or follow the rules for construction.

In a desktop computer system, it is difficult to store all of the Library of Congress authority files. Five gigantic volumes are required to list the *Library of Congress Subject Headings*. The portion used by a school or special librarian would be only a fraction of the whole.

What is more important on the computer-based library catalog is what is termed "local authority control." Local authority control allows the librarian to look at the list of subject headings or the list of author names and ask to reuse one that has already been entered. In that way, all headings for the same person or same subject will be entered exactly the same way -- which is the point of authority control. Names shown in Cataloging in Publication (CIP) data in books are also based on Library of Congress authority records at the time of publication. The forms shown for

current publications in an online catalog after a retrospective conversion of data should be correct, since nearly every book or data vendor's database is based on Library of Congress MARC files.

The term "retrospective conversion" describes a project that converts bibliographic records from their present form -- such as shelflist cards or a brief circulation record -- to full machine-readable bibliographic records. The term retrospective is used because the project is done for a library's existing collection -- everything placed in the library up to the present time. Usually the retrospective conversion is done by "matching" a library's old records (whether on cards or in a non-MARC format) to a database of full records in machine readable form. Rather than rekeying old records, a librarian can purchase the equivalent MARC records.

C. Parallel content: The fields requiring authority control are also the fields that use parallel tag construction. In general, in the 1XX, 4XX, 6XX, 7XX and 8XX fields, a personal name will have the last two digits 00. Therefore, for a main entry (1XX) that is a personal name (X00), the correct tag is 100. For a subject heading (6XX) that is a personal name, the tag is 600, and so on. This parallel content can be summarized as follows:

X00	Personal names
X10	Corporate names
X11	Meeting names
X30	Uniform titles
X40	Bibliographic titles
X50	Topical terms
X51	Geographic names

By combining this chart with the chart "Tags divided by hundreds" (above), it becomes evident that if the subject of a book (6XX) is a person (Lincoln, Abraham), the tag will be 600; if the subject of the book is a corporation (Apple Computer, Inc.), the tag will be 610; if the subject of the book is a topic (Railroads), the tag will be 650; if the subject of a book is a place (United States), the tag will be 651. An added entry (7XX) for a joint author (a personal name) will have tag 700.

The Dewey Decimal classification uses a similar construct in its tables for geographic locations or standard subdivisions.

6. Unique information appears at the beginning of the MARC record.

Preceding the main bibliographic record parts -- which are known to all librarians because of their presence on catalog cards -- the MARC record contains some less familiar information. Automated cataloging systems usually provide default data or prompts to help a cataloger input this information.

A. Leader: The leader is the first 24 characters of the record. Each position has an assigned meaning, but much of the information in the leader is for computer use. MARC record creation and editing programs usually provide a window or prompts to assist the cataloger in filling in any leader data elements that require input. The details required for interpreting the leader are in Part IX of this brochure.

B. Directory: MARC records are called "tagged" records. Before it becomes a tagged record, a MARC record (in what is called the MARC communications format), looks very different -- like one long run-on sentence. In the communications format, the fields are not preceded by tags. However, immediately following the leader is a block of data called a directory. This directory tells what tags are in the record and where they are placed (by a count of the characters to the position where each field begins). The directory is constructed (by computer) from the bibliographic record, based on the cataloging information, and, if any of the cataloging information is altered, can be reconstructed in the same way. Part XI displays a record in MARC 21 communications format, including its directory.

C. The 008 field: The 008 field is referred to as Fixed-Length Data Elements, or Fixed Field Codes. Its 40 characters contain important information, but in an abbreviated form. Although it is not yet used to its fullest in online catalog systems, this field can be used to identify and retrieve records matching specific criteria.

For example, there is a code in this field to indicate whether a book is large-print, a code to identify the country of publication, a code to identify juvenile materials, a code to indicate the language of the text, and so on. The details required for interpreting the 008 field for books are in Part X.

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Part IV:

Where Do MARC Records Originate?

Shared cataloging information -- shared bibliographic records -- has been a reality for a number of years. Many librarians have chosen to maximize limited resources by acquiring cataloging data rather than creating it themselves. For almost a century they have been able to order sets of catalog cards for their new books from the Library of Congress, or, more recently, from book jobbers.

Others typed their own cards, using the Cataloging in Publication (CIP) data found on the verso of the title page of many books. Librarians also adapted the partial or full cataloging records printed in library journals or in bibliographies.

Once computers became available, it was no longer necessary for librarians everywhere to constantly "reinvent the wheel." Why should hundreds of catalogers each use valuable time to compose nearly identical cataloging records for the same item when one cataloger could do it and share the record that had been created? Why should hundreds of typists retype that same record on cards when a computer could be programmed to print them?

After the MARC record was developed, libraries shared in the benefits of machine-readable cataloging whether they had an online system or not. The cards, purchased from the Library of Congress or from a jobber, were computer-printed from bibliographic records based on Library of Congress MARC files.

Colleges and universities with large library budgets joined bibliographic utilities such as OCLC, WLN, RLIN, and A-G Canada. For an on-going fee plus communication costs, their technical service departments went online with the utilities' powerful mainframe computers. These ventures allowed those libraries to use and contribute MARC records. Catalog cards could be ordered, and a printer could be hooked up to the system to receive data over the phone lines and print book labels.

Now we are in an exciting age when powerful, inexpensive computers are available for the management of library operations in all types and sizes of libraries. Computer software programs allow an individual library to have its own self-contained circulation system or online public access catalog. These programs often can read, store, and print MARC records. Today's computers use hard disks and floppy disks for storage of information rather than the tape drives used by mainframe computers. For computers, data is commonly sent and received on floppy disks. From the floppy disks, bibliographic records are uploaded to the stationary hard disk.

As library automation technology changes and as cataloging needs change, the MARC 21 formats and related MARC 21 documentation are changing also. Although the MARC format was originally developed by the Library of Congress and the MARC 21 format documentation is maintained and published there, the Library does not make changes or revisions unilaterally.

Two groups which are responsible for reviewing and revising MARC 21 format documentation are MARBI and the MARC Advisory Committee. The Machine-Readable Bibliographic Information (MARBI) Committee is a committee of the American Library Association (ALA) and is composed of three representatives from each of the three function-oriented divisions of ALA: ALCTS (technical services function); LITA (automation); and RUSA (reference). ALA tries to assure that all types of expertise are represented on MARBI. The MARC Advisory Committee is composed of representatives from the national libraries, the bibliographic utilities, vendor groups, and other library and scholarly associations. MARBI meets in conjunction with the MARC Advisory Committee at each ALA conference (annual and mid-winter). The major activity of the Committee is the review of discussion papers and proposals submitted by or through the Library of Congress for changes or additions to existing MARC formats, or the development of new MARC format support in emerging areas.

In 1987, the Library of Congress issued the first edition of the document *MARC 21 Specifications for Record Structure, Character Sets, and Exchange*

Media to aid libraries and other organizations who create or acquire MARC 21 records. Subsequent editions were published in 1990, 1994, and 2000. This document provides technical information on the structure of MARC records, the character sets used in MARC records, and the format for distribution media for MARC 21 records. It is intended for the use of personnel involved in the design and maintenance of systems for the exchange and processing of MARC records.

With the proliferation of computer systems in libraries, it became apparent that a standard was also needed for the exchange of MARC records on floppy diskette. Working closely with representatives from book and data vendors and library automation systems vendors, MARBI and the Advisory Committee recommended proposals which resulted in the necessary changes and additions to the MARC 21 format to fully specify record transfer using diskettes.

More recently, specifications have been developed also for the distribution of MARC records via file transfer (FTP). The diskette and FTP distribution specifications first appeared in the 1994 edition of MARC 21 specifications.

Librarians, vendors -- anyone at all -- who distributes cataloging data should be able to provide standard MARC 21 cataloging in standard format. Library automation systems vendors should be able to design their systems to correctly receive and process standard MARC records. Individual librarians using computers to manage their libraries are the direct beneficiaries of all this MARC 21 standards work.

Part V:

MARC Data Issues

As computers and technology continue to advance, important issues arise about the quality of library data and computer-based library automation systems. You need to be aware of these issues and their importance to your library.

A. Data questions: When bibliographic records are evaluated, some important questions which need to be addressed are: *What is the quality of the MARC data? Which MARC 21 fields are present? Is the data based on Library of Congress MARC records? If so, is the full information that is available on those files evident in the records? Is anything added to the record?*

Some librarians ask several vendors of bibliographic data for printed examples of their MARC records in order to compare their fullness and compliance with MARC 21 standards.

Clearly, the contents of the bibliographic records will determine the success of a library's automated operations to a very great extent, for you and your patrons. It is very important to ensure receipt of the highest quality records available.

B. Software questions: The next logical questions to ask are: *Does the library automation system being evaluated make full use of the cataloging information? Does it retain all the data and the MARC 21 content designators?*

Does the system load in the full record, with no unreasonable or false limitations on such things as the number of subject headings it will index or the length of the note fields? Even though the disk contained excellent, full records, any library automation system will be able to use only what was transferred to the hard disk. (If a circulation system loads in only circulation data, it is important to keep the MARC 21 data disks for upgrading to full bibliographic records at a later time, in order to expand to an online catalog.)

Are the MARC tags, indicators, and subfield codes still present on the librarian's data entry screen? Are the indicators used correctly? Are the subfield codes used correctly? (The information in Part VII will help in evaluating correct use of the content designators.)

After records are added to a database, it is important to store them in the MARC 21 bibliographic format. Future projects may require their use. The MARC format is an industry-wide standard. As additional programs become available, a library's ability to participate in them could hinge on the quality of its bibliographic records.

That brings up one other point. Does the system allow for downloading, or writing the records back out to a disk, to use in other projects such as a union catalog project? Will a program be available to write them in the MARC communications format? (See Part XI for a discussion of various communication and screen formats.)

Part VI:

In Conclusion

In these pages you've learned what the acronym MARC means. You've seen why a standard format for identifying elements of bibliographic data became necessary and why it is still important. You've learned to d efine and identify the three types of MARC content designators: tags, subfield codes, and indicators. Most important, with this knowledge you can understand the questions that should concern you when considering the purchase of bibliographic data or of a library automation system.

To build on this basic introduction to the topic, additional reading on the subject or courses in online cataloging can be beneficial. Further readings are suggested in the bibliography. MARC may appear difficult at first, but with knowledge and use, it will begin to make sense. As you become more familiar with MARC, the simpler it will become.

Library of Congress
Library of Congress Help Desk (*10/27/2009*)