

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

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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 Machine-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.

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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: Pagination: Illustrative matter: Size:	25 p. : 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	8009
903 ## \$a	\$15.00

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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)
440 tag	marks the series statement/added entry
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 indentation, 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.

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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.)

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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 define 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.

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Library of Congress

[Library of Congress Help Desk](#) (06/12/2003)

MARC 21 Reference Materials

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[Part IX: The Leader](#)

[Part X: Field 008 for Books](#)

Part VII: A Summary of Commonly Used MARC 21 Fields

This is a summary of the MARC 21 tags used most frequently by libraries in entering their own bibliographic records. For full listings of all MARC 21 tags, indicators, and subfield codes, see *MARC 21 Format for Bibliographic Data*.

In the explanations on these pages:

Tags -- The tags (3-digit numbers) are followed by the names of the fields they represent. In this summary, and in the *MARC 21 Format for Bibliographic Data*, if a tag can appear more than once in one bibliographic record, it is labeled repeatable (R). If it can only be used once, it is labeled non-repeatable (NR). For example, a catalog record can have several subjects, so the tags for subject added entries (6XX) are labeled repeatable (R).

Indicators -- The use of indicators is explained in fields where they are used. Indicators are one-digit numbers. Beginning with the 010 field, in every field -- following the tag -- are two character positions, one for Indicator 1 and one for Indicator 2. The indicators are not actually defined in all fields, however. And it is possible that a 2nd indicator will be used, while the 1st indicator remains undefined (or vice versa). When an indicator is undefined, the character position will be represented by the character # (for blank space).

Subfield codes -- All the data in each field (beginning with the 010 field) is divided into subfields, each of which is preceded by a delimiter-subfield code combination. The most common subfield codes used with each tag are shown. Each subfield code is preceded by the character \$, signifying a delimiter. The name of the subfield follows the code.

In general, every field **MUST** have a subfield 'a' (**\$a**). One exception that is often seen is in Field 020 (ISBN), when the ISBN information (subfield **\$a**) is unavailable but the price (subfield **\$c**) is known. Some subfields are repeatable. In this summary, repeatability is noted for only the more common repeatable subfields.

Examples: Examples follow the explanation for each field. For clarity, one space has been placed between the tag and the first indicator, one space has been placed between the second indicator and the first delimiter- subfield code, and one space has been inserted between the delimiter-subfield code and the subfield data.

010 Library of Congress Control Number -- (LCCN)

(NR, or Not Repeatable)

Indicators undefined.

Subfield used most often:

\$a -- Library of Congress control number

Example: 010 ## \$a ###86000988#

020 International Standard Book Number -- (ISBN)

(R, or Repeatable)

Indicators undefined.

Subfields used most often:

- \$a** -- International Standard Book Number
- \$c** -- Terms of availability (often a price)
- \$z** -- Cancelled/invalid ISBN (R)

Example: 020 ## \$a 0877547637

040 Cataloging source -- (NR)

Indicators undefined.

Subfields used most often:

- \$a** -- Original cataloging agency
- \$c** -- Transcribing agency
- \$d** -- Modifying agency (R)

Example: 040 ## \$a DLC
 \$c DLC
 \$d gwhs

100 Main entry -- Personal name -- (primary author)

(NR; there can be only one main entry)

Indicator 1: Type of personal name entry element

- 0 -- Forename
- 1 -- Surname (this is the most common form)
- 3 -- Family name

Indicator 2 undefined.

Indicator 2 became obsolete in 1990. Older records may display 0 or 1

Subfields used most often:

- \$a** -- Personal name
- \$b** -- Numeration
- \$c** -- Titles and other words associated with a name (R)
- \$q** -- Fuller form of name
- \$d** -- Dates associated with a name (generally, year of birth)

Example: 100 1# \$a Gregory, Ruth W.
 \$q (Ruth Wilhelme),
 \$d 1910-

130 Main entry -- Uniform title -- (NR)

Indicator 1: Nonfiling characters

- 0-9 -- Number of nonfiling characters present (for initial articles, including spaces)

Indicator 2 undefined.

Indicator 2 became obsolete in 1990. (See 100 above.)

Subfields used most often:

- \$a** -- Uniform title
- \$p** -- Name of part/section of a work (R)
- \$l** -- Language of a work
- \$s** -- Version
- \$f** -- Date of a work

Example: 130 0# \$a Bible.
 \$p O.T.
 \$p Psalms.

240 Uniform title (NR)

Indicator 1: Uniform title printed or displayed

- 0 -- Not printed or displayed
- 1 -- Printed or displayed (most common)

Indicator 2: Nonfiling characters

0-9 -- Number of nonfiling characters present (for initial articles, including spaces)

Subfields used most often:

\$a -- Uniform title

\$l -- Language of a work

\$f -- Date of a work

```
Example:    240 10 $a Ile mystérieuse.
            $l English.
            $f 1978
```

245 Title Statement (NR)

Indicator 1: Title added entry

(Should the title be indexed as a title added entry?)

0 -- No title added entry

(indicates a title main entry; i.e. no author is given)

1 -- Title added entry

(the proper indicator when an author given in 1XX; the most common situation)

Indicator 2: Nonfiling characters

0-9 -- Number of nonfiling characters present, including spaces; usually set at zero, except when the title begins with an article; e.g., for *The robe*, the second indicator would be set to 4. The letters *T*, *h*, *e*, and the space following them are then ignored in alphabetizing titles. The record will be automatically filed under "*r*" -- for *Robe*.

Subfields used most often:

\$a -- Title proper

\$h -- Medium (often used for non-book media)

\$p -- Name of part/section of a work (R)

\$b -- Reminder of title (subtitles, etc.)

\$c -- Remainder of title page transcription/Statement of responsibility

```
Example:    245 14 $a The DNA story :
            $b a documentary history of gene
            cloning /
            $c James D. Watson, John Tooze.
```

246 Varying form of title (R)

Indicator 1: Note/title added entry controller

1 -- Note, title added entry

3 -- No note, title added entry

Indicator 2: Type of title

-- No information provided

0 -- Portion of title

1 -- Parallel title

4 -- Cover title

8 -- Spine title

Subfield used most often:

\$a -- Title proper

```
Example:    246 3# $a Four corners power review
```

250 Edition statement (NR)

Indicators undefined.

Subfield used most often:

\$a -- Edition statement

```
Example: 250 ## $a 6th ed.
```

260 Publication, distribution, etc. (Imprint) (R)*Indicator 1:* Sequence of publishing statements

-- No information provided

Indicator 2: Undefined*Subfields used most often:***\$a** -- Place of publication, distribution, etc. (R)**\$b** -- Name of publisher, distributor, etc. (R)**\$c** -- Date of publication, distribution, etc. (R)

```
Example: 260 ## $a New York :
          $b Chelsea House,
          $c 1986.
```

300 Physical description (R)*Indicators undefined.**Subfields used most often:***\$a** -- Extent (number of pages) (R)**\$b** -- Other physical details (usually illustration information)**\$c** -- Dimensions (cm.) (R)**\$e** -- Accompanying material (for example, "teacher's guide" or "manual")

```
Example: 300 ## $a 139 p. :
          $b ill. ;
          $c 24 cm.
```

440 Series statement / Added entry--Title (R)*Indicator 1 undefined**Indicator 2:* Nonfiling characters

0-9 -- Number of nonfiling characters present (for initial articles, including spaces)

*Subfields used most often:***\$a** -- Title**\$v** -- Volume number

```
Example: 440 #0 $a Modern critical views ;
          $v 26
```

490 Series statement (No added entry is traced from field) (R)*Indicator 1:* Specifies whether series is traced (whether an 8XX tag is also present, tracing the series differently)

0 -- Series not traced

1 -- Series traced differently (8XX is in record)

*Indicator 2 undefined.**Subfield used most often:***\$a** -- Series statement (R)**\$v** -- Volume number (R)

```
Example: 490 1# $a Colonial American craftsmen
```

500 General note (R)*Indicators undefined.**Subfield used most often:***\$a** -- General note (Used when no specialized note field has been defined for the information. Examples: Notes regarding the index; the source of the title; variations in title; descriptions of

the nature, form, or scope of the item.)

Example: 500 ## \$a Includes index.

504 Bibliography, etc. note (R)

Indicators undefined.

Subfield used most often:

\$a -- Bibliography, etc. note

Example: 504 ## \$a Includes bibliographical references.

505 Formatted contents note (R)

Indicator 1: Type of contents note

0 -- Complete contents

1 -- Incomplete contents (used with multivolume set when some volumes are not yet published)

2 -- Partial contents

Indicator 2: Level of content designation

-- Basic

Subfield used most often:

\$a -- Formatted contents note

Example: 505 0# \$a Pride and prejudice -- Emma
-- Northanger Abbey.

520 Summary, etc. note (R)

Indicator 1: Display constant controller

-- Summary

1 -- Review

2 -- Scope and content

3 -- Abstract

Indicator 2 undefined

Subfields used most often

\$a -- Summary, abstract, or annotation

\$b -- Expansion of summary note

Example: 520 ## \$a This basic guide to parliamentary procedure tells how to conduct and participate in a meeting properly.

600 Subject added entry -- Personal name (R)

Indicator 1: Type of personal name entry element

0 -- Forename

1 -- Surname (this is the most common form)

3 -- Family name

Indicator 2: Subject heading system/thesaurus (identifies the specific list or file which was used)

0 -- Library of Congress Subject Headings

1 -- LC subject headings for children's literature

2 -- Medical Subject Headings

3 -- National Agricultural Library subject authority file

4 -- Source not specified

5 -- Canadian Subject Headings

6 -- Répertoire de vedettes-matière

7 -- Source specified in subfield \$2

(Note regarding Sears subject headings: The MARC 21 format does not provide an assigned indicator for Sears subject headings. Therefore, an

indicator of 7 is used, and the MARC defined code "sears" is placed in subfield \$2.)

Subfields used most often:

- \$a** -- Personal name (surname and forename)
- \$b** -- Numeration
- \$c** -- Titles and other words associated with a name (R)
- \$q** -- Fuller form of name
- \$d** -- Dates associated with a name (generally, year of birth)
- \$t** -- Title of a work
- \$v** -- Form subdivision (R)
- \$x** -- General subdivision (R)
- \$y** -- Chronological subdivision (R)
- \$z** -- Geographic subdivision (R)
- \$2** -- Source of heading or term (used with 2nd indicator of 7)

```
Example: 600 10 $a Shakespeare, William,
          $d 1564-1616
          $x Comedies
          $x Stage history.
```

```
Example: 600 10 $a Shakespeare, William,
          $d 1564-1616
          $x Knowledge
          $z Rome
          $v Congresses.
```

Notice that subfields \$v, \$x, and \$z in the 600 field are repeatable. Subfields \$v, \$x, \$y, and \$z do not have to be in alphabetical order. They will be in the order prescribed by the instructions given by the subject heading system.

610 Subject added entry -- Corporate name (R)

Indicator 1: Type of corporate name entry element

- 0 -- Inverted name (not used with AACR2)
- 1 -- Jurisdiction name
- 2 -- Name in direct order

Indicator 2: Subject heading system/thesaurus.

See indicator 2 under 600

Subfields used most often:

- \$a** -- Corporate name or jurisdiction name as entry element
- \$b** -- Subordinate unit (R)
- \$v** -- Form subdivision (R)
- \$x** -- General subdivision (R)
- \$y** -- Chronological subdivision (R)
- \$z** -- Geographic subdivision (R)
- \$2** -- Source of heading or term (used with 2nd indicator of 7)

```
Example: 610 10 $a United States.
          $b Army Air Forces
          $v Biography.
```

650 Subject added entry -- Topical term (Most subject headings fit here.) (R)

Indicator 1: Level of subject

- # -- No information provided

Indicator 2: Subject heading system/thesaurus

(identifies the specific list or file which was used)

- 0 -- Library of Congress Subject Headings
- 1 -- LC subject headings for children's literature
- 2 -- Medical Subject Headings
- 3 -- National Agricultural Library subject authority file
- 4 -- Source not specified
- 5 -- Canadian Subject Headings

- 6 -- Répertoire de vedettes-matière
- 7 -- Source specified in subfield \$2

Note regarding Sears subject headings: The MARC 21 format does not provide an assigned indicator for Sears subject headings. Therefore, an indicator of 7 is used, and the MARC defined code "sears" is placed in subfield \$2.)

Subfields used most often:

- \$a** -- Topical term
- \$v** -- Form subdivision (R)
- \$x** -- General subdivision (R)
- \$y** -- Chronological subdivision (R)
- \$z** -- Geographic subdivision (R)
- \$2** -- Source of heading or term used with 2nd indicator of 7)

```
Example:    650 #0 $a Theater
           $z United States
           $v Biography
           $v Dictionaries.
```

Notice that subfields \$v, \$x, and \$z in the 650 field are repeatable. Subfields \$v, \$x, \$y, and \$z do not have to be in alphabetical order. They will be in the order prescribed by the instructions given by the subject heading system.

651 Subject added entry -- Geographic name (R)

Indicator 1: undefined.

Indicator 2: Subject heading system/thesaurus.

See indicator 2 under 600

Subfields used most often:

- \$a** -- Geographic name
- \$v** -- Form subdivision (R)
- \$x** -- General subdivision (R)
- \$y** -- Chronological subdivision (R)
- \$z** -- Geographic subdivision (R)
- \$2** -- Source of heading or term (used with 2nd indicator of 7)

```
Example:    651 #0 $a United States
           $x History
           $v Chronology.
```

Notice that subfields \$v, \$x, and \$z in the 651 field are repeatable. Subfields \$v, \$x, \$y, and \$z do not have to be in alphabetical order. They will be in the order prescribed by the instructions given by the subject heading system.

700 Added entry -- Personal name (R)

Indicator 1: Type of personal name entry element

- 0 -- Forename
- 1 -- Surname (this is the most common form)
- 3 -- Family name

Indicator 2: Type of added entry

- # -- No information provided (most common; co-authors, editors, etc.)
- 2 -- Analytical entry (The values for Indicator 2 changed in 1994 with Format Integration, and older records may display additional values. An analytical entry involves an author/title of an item contained in a work.)

Subfields used most often:

- \$a** -- Personal name
- \$b** -- Numeration
- \$c** -- Titles and other words associated with a name (R)
- \$q** -- Fuller form of name
- \$d** -- Dates associated with a name (generally, year of birth)
- \$e** -- Relator term (such as ill.) (R)
- \$4** -- Relator code (R)

Example: 700 1# \$a Baldrige, Letitia.

710 Added entry -- Corporate name (R)

Indicator 1: Type of corporate name entry element

- 0 -- Inverted name (not used with AACR2)
- 1 -- Jurisdiction name
- 2 -- Name in direct order

Indicator 2: Type of added entry.

- See Indicator 2 under 700
- # -- No information provided
- 2 -- Analytical entry

Subfields used most often:

- \$a** -- Corporate name or jurisdiction name as entry element
- \$b** -- Subordinate unit (R)

Example: 710 2# \$a Sunburst Communications (Firm)

740 Added entry -- Uncontrolled related/analytical title (R)

Indicator 1: Nonfiling characters

- 0-9 -- Number of nonfiling characters present (for initial articles, including spaces)

Indicator 2: Type of added entry. See Indicator 2 under 700

- # -- No information provided
- 2 -- Analytical entry

(This field was redefined in 1994 with Format Integration. Prior to 1994, the field was also used for variant titles, such as a different wording on a spine title. In records created since Format Integration, those variant titles appear in a 246 field.)

Subfield used most often:

- \$a** -- Title

Example: 740 02 \$a Uncle Vanya.

800 Series added entry -- Personal name (R)

Indicator 1: Type of personal name entry element

- 0 -- Forename
- 1 -- Surname
- 3 -- Family name

Indicator 2 undefined.

Subfields used most often:

- \$a** -- Personal name
- \$b** -- Numeration
- \$c** -- Titles and other words associated with a name (R)
- \$q** -- Fuller form of name
- \$d** -- Dates associated with a name (generally, year of birth)
- \$t** -- Title of a work (the series)
- \$v** -- Volume number

Example: 800 1# \$a Fisher, Leonard Everett.
\$t Colonial American craftsmen.

830 Series added entry -- Uniform title (R)

Indicator 1 undefined.

Indicator 2: Nonfiling characters

- 0-9 -- Number of nonfiling characters present (for initial articles, including spaces)

Subfield used most often:

- \$a** -- Uniform title
- \$v** -- Volume number

Example: 830 #0 \$a Railroads of America (Macmillan)

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Part VIII: A List of Other Fields Often Seen in MARC Records

- 001 Control number
- 003 Control number identifier
- 005 Date and time of latest transaction
- 006 Fixed-length data elements -- additional material characteristics
- 007 Physical description fixed field
- 008 Fixed length data elements (See [Part X](#))
- 022 International Standard Serial Number (ISSN)
- 037 Source of acquisition
- 041 Language code
- 043 Geographic area code
- 050 Library of Congress call number
- 060 National Library of Medicine call number
- 082 Dewey Decimal classification number (the one recommended by the Library of Congress; locally-assigned call numbers may appear elsewhere)
- 110 Main entry -- Corporate name (less frequent under AACR2 rules)
- 256 Computer file characteristics
- 263 Projected publication date
(indicates a CIP -- Cataloging in Publication -- record)
- 306 Playing time
- 508 Creation/production credits note
- 510 Citation/references note (review sources)
- 511 Participant or performer note
- 521 Target audience note (first indicator: 0 = reading grade level, 1 = interest age level, 2 = interest grade level, 3 = special audience characteristics, 4 = motivation interest level)
- 530 Additional physical form available note
- 538 System details note
- 586 Awards note
- 656 Index term -- Occupation
- 730 Added entry -- Uniform title
- 852 Location
- 856 Electronic location and access
- 9XX Reserved for local use. (They are used by vendors, systems, or individual libraries to exchange additional data)

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Part IX: The Leader

There are 24 positions in the Leader, numbered from 00 to 23. For fuller explanation, see the *MARC 21 Format for Bibliographic Data*.

- 00-04 Record length (calculated by the computer for each record)
- 05 Record status
 - a = increase in encoding level
 - c = corrected or revised
 - d = deleted
 - n = new
 - p = increase in encoding from prepublication (previous CIP)
- 06 Type of record
 - a = language material
 - c = printed music

- d = manuscript music
- e = cartographic material
- f = manuscript cartographic material
- g = projected medium
- i = nonmusical sound recording
- j = musical sound recording
- k = 2-dimensional nonprojectable graphic
- m = computer file
- o = kit
- p = mixed materials
- r = 3-dimensional artifact or naturally occurring object
- t = manuscript language material
- 07 **Bibliographic level**
 - a = monographic component part
 - b = serial component part
 - c = collection
 - d = subunit
 - i = integrating resource
 - m = monograph/item
 - s = serial
- 08 **Type of control**
 - # = no specified type
 - a = archival
- 09 **Character coding scheme**
 - # = MARC-8
 - a = UCS/Unicode
- 10 **Indicator count** (always "2")
- 11 **Subfield code count** (always "2")
- 12-16 **Base address of data** (calculated by the computer for each record)
- 17 **Encoding level**
 - # = full level
 - 1 = full level, material not examined
 - 2 = less-than-full level, material not examined
 - 3 = abbreviated level
 - 4 = core level
 - 5 = partial (preliminary) level
 - 7 = minimal level
 - 8 = prepublication level (CIP)
 - u = unknown
 - z = not applicable
- 18 **Descriptive cataloging form**
 - # = non-ISBD
 - a = AACR2
 - i = ISBD
 - u = unknown
- 19 **Linked record requirement**
 - # = related record NOT required (to fully process this record)
 - r = related record required (to fully process this record)
- 20 **Length of the length-of-field portion** (always "4")
- 21 **Length of the starting-character-position portion** (always "5")
- 22 **Length of the implementation-defined portion** (always "0")
- 23 **Undefined** (always "0")

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Part X: Field 008 for Books

Field 008 is used for Fixed Length Data Elements ("Fixed Field Codes"). There are 40 character positions in field 008, numbered from 00-39. Undefined positions must contain either a blank (#) or a fill character (|). Positions 00-17 and 35-39 are defined the same way for all media.

The information shown here for positions 18-34 applies only to books. For explanation of all the positions below and for positions 18-34 for other

media, see the *MARC 21 Format for Bibliographic Data*.

Note that field 008 has no indicators or subfield codes.

- 00-05 **Date entered on file (YYMMDD)**,
where Y=year, M=month, and D=day
- 06 **Type of date/publication status:**
b = no dates given; B.C. date involved
e = detailed date
s = single known date/probable date
m = multiple dates
r = reprint/reissue date (Date 1) and original date (Date 2)
n = dates unknown
q = questionable date
t = publication date and copyright date
| = no attempt to code
- 07-10 **Date 1/beginning date of publication**
11-14 **Date 2/ending date of publication**

Date fields contain the year(s) of publication. The type of date(s) in these elements are specified in fixed field element 06: Type of date/publication status. (For further details, see the field 008 description in the *MARC 21 Format for Bibliographic Data*.)

- 15-17 **Place of publication, production, or execution**
For example:
pk# = Pakistan
cau = California (US)

(For a full list of codes used in these positions, see the [MARC Code List for Countries](#).)

- 18-21 **Illustrations (up to 4 codes):**
= no illustrations
a = illustrations
b = maps
c = portraits
d = charts
e = plans
f = plates
g = music
h = facsimiles
i = coats of arms
j = genealogical tables
k = forms
l = samples
m = phonodisc, phonowire, etc.
o = photographs
p = illuminations
| = no attempt to code
- 22 **Target audience:**
= unknown or not specified
a = preschool
b = primary
c = pre-adolescent
d = adolescent
e = adult
f = specialized
g = general
j = juvenile
| = no attempt to code
- 23 **Form of item:**
= none of the following
a = microfilm
b = microfiche
c = microopaque
d = large print
f = braille

- r = regular print reproduction
- s = electronic
- | = no attempt to code
- 24-27 **Nature of contents (up to 4):**
- # = no specified nature of contents
- a = abstracts/summaries
- b = bibliographies (is one or contains one)
- c = catalogs
- d = dictionaries
- e = encyclopedias
- f = handbooks
- g = legal articles
- i = indexes
- j = patent document
- k = discographies
- l = legislation
- m = theses
- n = surveys of literature
- o = reviews
- p = programmed texts
- q = filmographies
- r = directories
- s = statistics
- t = technical reports
- u = standards/specifications
- v = legal cases and notes
- w = law reports and digests
- z = treaties
- | = no attempt to code
- 28 **Government publication:**
- # = not a government publication
- i = international intergovernmental
- f = federal/national
- a = autonomous or semi-autonomous component
- s = state, provincial, territorial, dependent, etc.
- m = multistate
- c = multilocal
- l = local
- z = other type of government publication
- o = government publication -- level undetermined
- u = unknown if item is government publication
- | = no attempt to code
- 29 **Conference publication:**
- 0 = not a conference publication
- 1 = conference publication
- | = no attempt to code
- 30 **Festschrift:**
- 0 = not a festschrift
- 1 = festschrift
- | = no attempt to code
- 31 **Index:**
- 0 = no index
- 1 = index present
- | = no attempt to code
- 32 **Undefined (since 1990)** (Earlier records may contain the values 0 or 1)
- # = Undefined
- | = no attempt to code
- 33 **Literary form:**
- 0 = not fiction (not further specified)
- 1 = fiction (not further specified)
- c = comic strips
- d = dramas
- e = essays
- f = novels
- h = humor, satires, etc.
- i = letters

j = short stories
m = mixed forms
p = poetry
s = speeches
u = unknown
| = no attempt to code

34 Biography:

= no biographical material
a = autobiography
b = individual biography
c = collective biography
d = contains biographical information
| = no attempt to code

35-37 Language:

A three-letter code. For example: eng fre ger spa rus ita

(For a full list of codes used in these positions, see the [MARC Code List for Languages](#).)

38 Modified record:

= not modified
x = missing characters (because of characters unavailable in MARC character set)
s = shortened
d = "dashed-on" information omitted
r = completely romanized/printed cards in script
o = completely romanized/printed cards romanized
| = no attempt to code

39 Cataloging source:

= national bibliographic agency
c = cooperative cataloging program
d = other sources
u = unknown
| = no attempt to code

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Library of Congress

Library of Congress Help Desk (04/04/2006)

MARC 21 Reference Materials

[Part XI: A Sample Record in Various Formats](#)

[Part XII: AV Records: From Cards to MARC 21](#)

[Selected Bibliography](#)

[MARC 21 Content Designators: A Review](#)

Part XI:

A Sample Record in Various Formats

[A note on the sample records shown here.](#)

The examples of catalog records in this booklet are based on records for actual publications, but some of the information has been slightly changed. In some cases, fields have been altered to show a more typical example of what you would find in a MARC record. In other cases, the record has been changed slightly to bring it in line with current cataloging rules. The examples are meant to illustrate typical MARC records, not to show the "correct" cataloging for these particular titles.

Here are examples of the same bibliographic record in various formats.

MARC 21 communications format: The block of data below is what the programmer sees when he looks at the contents of a MARC file. The tags do not appear before the fields, but a directory to the data tells which tags should be used and where each field starts (in other words, where each tag belongs).

```
01041cam 2200265 a 45000010020000000003000040002000
50017000240080041000410100024000820200025001060200
04400131040001800175050002400193082001800217100003
200235245000870026724600360035425000120039026000370
04023000029004395000042004685200220005106500033007
30650001200763^###89048230#/AC/r91^DLC^19911106082
810.9^891101s1990###maua###j#####000#0#eng##^###$
a###89048230#/AC/r91^###a0316107514 :$c$12.95^###$a
0316107506 (pbk.) :$c$5.95 ($6.95 Can.)^###$aDLC$cD
LC$dDLC^00$aGV943.25$b.B74 1990^00$a796.334/2$220^
10$aBrenner, Richard J.,$d1941-^10$aMake the team.
$pSoccer :$ba heads up guide to super soccer! /$cR
ichard J. Brenner.^30$aHeads up guide to super soc
cer.^###$alst ed.^###$aBoston :$bLittle, Brown,$c19
90.^###$al27 p. :$bill. ;$c19 cm.^###$a"A Sports ill
ustrated for kids book."^###$aInstructions for impr
oving soccer skills. Discusses dribbling, heading,
playmaking, defense, conditioning, mental attitud
e, how to handle problems with coaches, parents, a
nd other players, and the history of soccer.^#0$aS
occer$vJuvenile literature.^#1$aSoccer.^
```

Cracking the code, or, Interpreting the directory: Usually, only the computer programmer and the computer come into contact with the record in MARC 21 communications format, but it is interesting to understand how the directory works.

The first 24 positions are the leader. In this example the leader fills approximately 1/3 of the first line and ends with "4500." Immediately following the leader, the directory begins. Tags have been underlined in this example. Each individual tag directory is 12 characters long. The first tag is 001. Following each tag, the next four positions show the length of the field. The data in the 001 field (control number) in this record is 20 characters long. The next 5 positions tell the starting point for this field within the data string that follows the directory. The 001 field begins at the 00000 position (the first position is position 0). The next tag is 003, which is 4 characters long and begins at the 20th position (the length of the previous position -- 20 -- added to its starting spot -- 00000 -- equals 20). The next tag is 005. It is 17 characters long and begins at the 24th spot (4 + 20 = 24).

This directory tells us:

Tag	Length	Starts at	Tag	Length	Starts at
001	0020	00000	100	0032	00235
003	0004	00020	245	0087	00267
005	0017	00024	246	0036	00354
008	0041	00041	250	0012	00390
010	0024	00082	260	0037	00402
020	0025	00106	300	0029	00439
020	0044	00131	500	0042	00468
040	0018	00175	520	0220	00510
050	0024	00193	650	0033	00730
082	0018	00217	650	0012	00763

Field terminators (displayed as a ^ in this example) mark the end of the directory and the end of each field that follows. Notice that the sum of the 2nd and 3rd column in any row equals the number in the 3rd column in the next row. The starting point of one field plus its length equals the starting position of the next field.

This can be verified by counting the character positions within the data, remember that spaces count, as do the field terminators (^). (Two character positions are always reserved for indicators at the beginning of a field.) A record terminator (displayed as a \ in this example) ends each bibliographic record.

Tagged display: Most data editing screens are called "tagged displays" because they show the MARC 21 tags, inserted where they belong, as directed by the directory. A computer program has been written to do this tagging.

The example below, a sample data entry screen, is tagged.

Sample Local System Record

If a librarian uploaded this record into a library automation system the data entry screen might look like this. The descriptors in the left-hand column are not stored in a MARC record. They are part of the software program's screen display. Most systems are designed so that records can be edited to add additional fields containing local information.

```

Leader          01041cam 2200265 a 4500
Control No.     001 ###89048230
Control No. ID 003 DLC
DTLT           005 19911106082810.9
Fixed Data     008 891101s1990 maua j      001 0 eng
LCCN           010 ## $a ###89048230
ISBN           020 ## $a 0316107514 :
                $c $12.95
ISBN           020 ## $a 0316107506 (pbk.) :
                $c $5.95 ($6.95 Can.)
Cat. Source    040 ## $a DLC
                $c DLC
                $d DLC
LC Call No.    050 00 $a GV943.25
                $b .B74 1990
Dewey No.      082 00 $a 796.334/2
                $2 20
ME:Pers Name   100 1# $a Brenner, Richard J.,
                $d 1941-
Title          245 10 $a Make the team.
                $p Soccer :
                $b a heads up guide to super soccer! /
                $c Richard J. Brenner.
Variant Title  246 30 $a Heads up guide to super soccer
Edition        250 ## $a 1st ed.
Publication    260 ## $a Boston :
                $b Little, Brown,
                $c c1990.
Phys Desc      300 ## $a 127 p. :
                $b ill. ;
                $c 19 cm.
Note: General  500 ## $a "A Sports illustrated for kids
                book."
Note: Summary  520 ## $a Instructions for improving soccer
                skills. Discusses dribbling, heading,
                playmaking, defense, conditioning,
                mental attitude, how to handle
                problems with coaches, parents,
                and other players, and the history
                of soccer.
Subj: Topical  650 #0 $a Soccer

```


Book vs. non-book: Audiovisual materials are cataloged following many of the same rules as for books (from AACR2) and tagged using many of the same MARC 21 content designators (from the *MARC 21 Format for Bibliographic Data*). The differences from book tagging could be summarized as follows:

1. The 06 position of the Leader is changed to reflect the type of media (see [Part IX](#)).
2. An optional 007 tag may be added. It contains fixed-length data elements similar to those in the 008 field but related to the physical format of the item.
3. Definitions for data in the 008 tag in positions 18-34 change for different types of media.
4. Because of the number of people equally involved in the preparation of an audiovisual item, AACR2 rules often dictate a title main entry. In other words, there is often no 1XX tag.
5. In the 245 field, the medium or General Material Designation (GMD) follows the title proper in subfield \$h. It is enclosed in brackets. Terms which may be used as GMDs are listed in AACR2 chapter 1, rule 1.1C1.
6. The data most different from book data is the physical description (300 tag), as it changes to physically describe the audiovisual material. Rules and examples for each media type are shown in chapters 2-11 of AACR2.
7. The 300 tag often contains a subfield \$e for describing accompanying material such as a teacher's guide or transparency masters.
8. A few special tags are used to accommodate the rules for cataloging different types of materials. (Some are shown in [Part IX](#).)
9. In the notes area, in addition to some special tags, tag 500 is used liberally for additional cataloging information.

Remember: For complete details about the 007, 008, and any special tags used with audiovisual materials, see the *MARC 21 Format for Bibliographic Data*.

Examples: On the following pages are examples of cataloging for three types of non-book items. These pages show how the data on catalog cards would appear, then how the same record would be tagged with MARC 21 content designators.

Additional examples may be seen in several of the resources cited in the [bibliography](#).

Typical videorecording in card format:

TH9148 **The Adventures of Safety Frog.** Fire safety
[videorecording] / Century 21 Video, Inc. -- Van Nuys, Calif. :
AIMS Media, 1988.

1 videocassette (10 min.) : sd., col. ; 1/2 in.

Cataloged from contributor's data.

VHS.

Audience: Elementary grades.

Issued also as motion picture.

Summary: Safety Frog teaches children to be fire safe, explaining that smart kids never play with matches. She shows how smoke detectors work and explains why they are necessary. She also describes how to avoid household accidents that lead to fires and how to stop, drop, and roll if clothing catches fire.

For sale (\$195.00) or rent (\$50.00)

1. Fire prevention -- Juvenile films. 2. Fire detectors -- Juvenile films. 3. Dwellings -- Fires and fire prevention -- Juvenile films. 4. Puppet films. 5. Fire prevention. 6. Safety. I. Century 21 Video, Inc. II. AIMS Media. III. Title: Fire safety [videorecording]

Dewey Class no.: 613.6 -- dc 11

89-711816
MARC

The same record with MARC 21 content designators:

```

Leader *****ngm 22*****1a 4500
001 89711816
003 DLC
005 19891107152635.3
007 vf cbaho
008 890719s1988 cau010 c vleng c
010 ## $a 8911816
020 ## $c For sale ($195.00) or rent ($50.00)
040 ## $a AIMS Media
050 10 $a TH9148
082 10 $a 613.6 $2 11
245 04 $a The Adventures of Safety Frog. $p Fire
safety $h [videorecording] /
$c Century 21 Video, Inc.
246 30 $a Fire safety $h [videorecording]
260 ## $a Van Nuys, Calif. : $b AIMS Media, $c 1988.
300 ## $a 1 videocassette (10 min.) : $b sd., col. ;
$c 1/2 in.
500 ## $a Cataloged from contributor's data.
538 ## $a VHS.
521 ## $a Elementary grades.
530 ## $a Issued also as motion picture.
520 ## $a Safety Frog teaches children to be fire safe,
explaining that smart kids never play with
matches. She shows how smoke detectors work
and explains why they are necessary. She also
describes how to avoid house hold accidents
that lead to fires and how to stop, drop,
and roll if clothing catches fire.
650 #0 $a Fire prevention $v Juvenile films.
650 #0 $a Fire detectors $v Juvenile films.
650 #0 $a Dwellings $x Fires and fire prevention $v
Juvenile films.
650 #0 $a Puppet films.
650 #1 $a Fire prevention.
650 #1 $a Safety.
710 2# $a Century 21 Video, Inc.
710 2# $a AIMS Media.

```

Typical electronic resource record in card format:

QA95 **Amazing arithmetricks.** [electronic resource]. -- Version
1.0. -- Minneapolis, Minn. : MECC, c1993.

2 computer disks ; 3 1/2-5 1/4 in. + 1 manual (71p.)

Title from title screen.

Ed. statement from disk label.

Copy-protected.

Same software on both disks.

Interest grade level: 5-12.

Summary: Using the motivating environment of a carnival setting,
students are challenged to solve a variety of puzzles. Intended to
improve logic and mathematical problem solving skills. Includes a
provision allowing students to choose a level of difficulty matched to
ability.

MECC: S/N A-336

ISBN 0792902637 : \$59.00

1. Mathematical recreations -- Juvenile software. 2. Problem
solving -- Juvenile software. 3. Mathematical recreations -- Software. 4.
Problem solving -- Software. I. Minnesota Educational Computing
Corporation.

Dewey Class no.: 513 -- dc 12

93-22553

MARC

The same record with MARC 21 content designators:

```

Leader *****cmm 22***** a 4500
001 93022553
003 DLC
005 19930731163011.2
008 930305s1993 mnun d b eng
010 ## $a 93022553
020 ## $a 0792902637 : c $59.00

```

```

037 ## $a A-336 b MEC
040 ## $a DLC c DLC d DLC
050 00 $a QA95
082 00 $a 513 2 12
245 00 $a Amazing arithmetricks $h [electronic resource].
250 ## $a Version 1.0.
256 ## $a Computer programs.
260 ## $a Minneapolis, Minn. : $b MECC, $c c1993.
300 ## $a 2 computer disks ; $c 3 1/2-5 1/4 in. +
    $e 1 manual (71 p.)
538 ## $a System requirements: Apple II series;
    128K RAM; floppy disk drive; color monitor
    recommended.
500 ## $a Title from title screen.
500 ## $a Ed. statement from disk label.
500 ## $a Copy-protected.
500 ## $a Same software on both disks.
521 2# $a 5-12.
520 ## $a Using the motivating environment of a
    carnival setting, students are challenged
    to solve a variety of puzzles. Intended
    to improve logic and mathematical problem
    solving skills. Includes a provision
    allowing students to choose a level of
    difficulty matched to ability.
650 #0 $a Mathematical recreations $v Juvenile software.
650 #0 $a Problem solving $v Juvenile software.
650 #1 $a Mathematical recreations $v Software.
650 #1 $a Problem solving $v Software.
710 20 $a Minnesota Educational Computing Corporation.

```

Typical sound recording in card format:

RZA2283 **Fox, Ruth.**

A story for every season [sound recording] /
[stories by Ruth Fox]. -- Baltimore, Md. : Uffigton
Productions, [1991]

1 sound cassette (ca. 45 min.) : analog.
Narrated by Trish MacDonald.
Recorded at Invisible Sound Studios.
In container (18 cm.).

Summary: Presents four children's stories about an oak
sapling who finds a place to grow; a seashell who is given a home;
a beaver who attempts to prolong fall; and a mountain boy who
befriends a doe. Includes sound effects and music.

Contents: Spring. Oakie, the wonder tree -- Summer. The
seashell -- Fall. The story of a rambunctious beaver named Willie
-- Winter. Amos, the mountain boy.

1. Children's stories -- Juvenile sound recordings. 2. Trees
-- Fiction -- Juvenile sound recordings. 3. Shells -- Fiction --
Juvenile sound recordings. 4. Beavers -- Fiction -- Juvenile sound
recordings. 5. Deer -- Fiction -- Juvenile sound recordings. I.
MacDonald, Trish. II. Title.

93-712603
MARC

The same record with MARC 21 content designators:

```

Leader *****cim 22***** a 4500
001 93712603
003 DLC
005 19930528154400.4
007 ssulunjlcnnnu
008 930524s1991 mdunnn j d f eng
010 ## $a 93712603
040 ## $a DLC c DLC d DLC
050 00 $a RZA 2283
100 1# $a Fox, Ruth.
245 12 $a A story for every season $h [sound
    recording] / $c [stories by Ruth Fox].
260 ## $a Baltimore, Md. : $b Uffigton
    Productions, $c [1991]
300 ## $a 1 sound cassette (ca. 45 min.) : $b analog.

```

306 ## \$a 004500
 511 0# \$a Narrated by Trish MacDonald.
 518 ## \$a Recorded at Invisible Sound Studios.
 500 ## \$a In container (18 cm.).
 520 ## \$a Presents four children's stories about an oak sapling who finds a place to grow; a seashell who is given a home; a beaver who attempts to prolong fall; and a mountain boy who befriends a doe. Includes sound effects and music.
 505 0# \$a Spring. Oakie, the wonder tree -- Summer. The seashell -- Fall. The story of a rambunctious beaver named Willie -- Winter. Amos, the mountain boy.
 650 #0 \$a Children's stories \$v Juvenile sound recordings.
 650 #0 \$a Trees \$v Fiction \$v Juvenile sound recordings.
 650 #0 \$a Shells \$v Fiction \$v Juvenile sound recordings.
 650 #0 \$a Beavers \$v Fiction \$v Juvenile sound recordings.
 650 #0 \$a Deer \$v Fiction \$v Juvenile sound recordings.
 700 10 \$a MacDonald, Trish. \$4 nrt

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Selected Library of Congress Cataloging Distribution Service Publications

Cataloger's Desktop. LC's most popular cataloging publications on one CD-ROM disc. [Web version to come]

Classification Web. LC Classification Schedules and Subject Headings on the World Wide Web.

LC Classification Schedules. Multiple vols. Irregular.

Library of Congress Subject Headings. Annual. 5 vols.

MARC Content Designation training manuals.

Name and Subject Authorities. On the World Wide Web at
<http://authorities.loc.gov>

Understanding MARC Authority Records.

MARC 21 documentation

[MARC Code List for Countries.](#)

[MARC Code List for Geographic Areas.](#)

[MARC Code List for Languages.](#)

[MARC Code Lists for Relators, Sources, Description Conventions.](#)

[MARC 21 LITE Bibliographic Format.](#) [On the World Wide Web only]

[MARC 21 Concise Formats](#)

[MARC 21 Format for Bibliographic Data.](#)

[MARC 21 Format for Community Information.](#)

[MARC 21 Format for Holdings Data.](#)

[MARC 21 Format for Authority Data.](#)

[MARC 21 Format for Classification Data.](#)

[MARC 21 Specifications for Record Structure, Character Sets and Exchange Media.](#)

See also:

www.loc.gov/marc/

www.loc.gov/cds/

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MARC 21 Content Designators: A Review

Part I: Definitions. Look at this sample line from a MARC 21 record (# indicates a blank space). Then fill in the blanks with letters representing correct answers. The number of times each answer will be used is given beside that answer.

260 ## \$a New York :\$b Harper & Row,\$c 1988.

Answers:

A. field/s (3)

D. subfield code/s (3)

B. indicator/s (4)

E. tag/s (3)

C. subfield/s (2)

1. The sample line represents one _____.
2. The number 260 is its _____.
3. There are two blanks in the _____ positions.
- 4., 5. What we see on the sample line is a _____ that is made up of three _____.
6. The characters \$a, \$b, and \$c are three examples of _____.
- 7., 8. In this field, neither the first nor the second _____ has an assigned meaning. In other words, the _____ in this field are undefined.
- 9., 10., 11. In MARC 21 records, there are 3 types of content designators: _____, _____, and _____.
- 12., 13. The 260 _____ identifies this as the Publication, distribution, etc. _____.
14. This field is divided into three _____: Place, Publisher, and Date.

15. In this field, \$b is the _____ that marks Publisher information.

16., 17. Authority control assures (circle 2):

- a. An author's name is always entered the same way for each book he/she has written.
- b. The library remains quiet at all times.
- c. A subject heading is always entered in the same form (in the bibliographic record for each book on that subject).
- d. The title paragraph is written correctly.

Part II: Access points. Access points include the main entry, subject added entries (often called subject headings), and other added entries.

For the book *The abolitionists* written by Dan Lacy and illustrated by Dick Tracy, draw lines to connect the right answers:

- | | |
|----------------------------|------------------------|
| 18. Lacy, Dan | A. subject added entry |
| 19. Tracy, Dick | B. main entry |
| 20. Slavery--United States | C. other added entry |

Patterned tags: The tags for access points follow a pattern.

21. If a book is written about Hayes, Helen, the subject heading is numbered 6 __.

22. If a book is written about the Chrysler Corporation, the subject heading is numbered 6 __.

23. If a book is written about Brazil, the subject heading is numbered 6 __.

24. If a book is written about football, the subject heading is numbered 6 __.

One final question:

25. For the title, *An album of great science fiction films*, the second indicator of the 245 tag should be set to _____.

Answers to MARC 21 Content Designators: A Review

1-A; 2-E; 3-B; 4-A; 5-C; 6-D; 7-B; 8-B; 9, 10, and 11 -- B, D, and E; 12-E; 13-A; 14-C; 15-D; 16 and 17 -- A and C; 18-B; 19-C; 20-A; 21-600; 22-610; 23-651; 24-650; 25-3

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