Authority Control in an International Environment: the UNIMARC Format for Authorities

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When the first version of the UNIMARC/ Authorities format was published in 1991 it could be considered as a culmination of efforts made by IFLA over several decades to promote and achieve the concept of Universal Bibliographic Control in the field of authorities.

Although the Programme I represent here, Universal Bibliographic Control and International MARC (UBCIM), started in 1974 in the British Library, the concept of Universal Bibliographic Control having been first formulated in the 1970s, many components of UBC existed before the name was invented. The purpose of UBC as stated by the founder of the Programme, Dorothy Anderson, in *Universal Bibliographic Control - a Long Term Policy, a Plan for Action*¹, is "to make universally and promptly available, in a form which is internationally acceptable, basic bibliographic data on all publications issued in all countries." It presupposes a network of national component parts "all integrated at the international level to form the total system". In the same publication, it is already stated that the total system depends upon universal recognition and acceptance:

- (a) that each national bibliographic agency is the organization responsible for creating the authoritative bibliographic record of the publication of its own country and
- (b) of international standards in creating the bibliographic record

The Unesco International Governmental Conference in 1974 gave recommendations for long term policy and confirmed the responsibility of the national bibliographic agencies "for establishing the authoritative form of name for its country's authors, both personal and corporate, and authoritative lists of its country's authors, personal and corporate."

And In 1977 one of the recommendations issued at the end of the International Congress on National Bibliographies organized by IFLA and Unesco in Paris stated that

"...each national bibliographic agency should maintain an authority control system for national names, personal and corporate, and uniform titles, in accordance with international guidelines".

IFLA, as you know, initiated and sponsored many studies in view of establishing an international system of authority control. Its work on standardization concentrated on two main areas: publication of international authority lists and formulation of international rules for the structure of authority forms.

International authority lists

Anonymous Classics (1978)², based on the *International List of Uniform Headings* published in 1964, lists uniform headings for European literature. This is currently being revised and will be enlarged to cover other continents.

A List of Uniform Headings³ for Higher Legislative and Ministerial Bodies in European Countries first appeared in 1975 and was revised in 1979.

The List of Uniform Titles for Liturgical Works of the Latin Rites of the Catholic Church⁴ provides titles from the Council of Trent (1546-1563) up to 1980.

*Names of States*⁵ is an authority list of language forms for catalogue entries. The national equivalent standards of original names are given in English, French, German, Russian and Spanish, now the official languages of IFLA (Spanish was not at the time of publication).

International rules

These are aimed at ensuring that the author's name is found in bibliographies and catalogued worldwide in a consistent way.

*Names of Persons*⁶, first published in 1977, lists national practices for entry in catalogues. A major revision led to the publication of the 4th revised enlarged edition in 1996.

Form and Structure of Corporate Headings⁷ had for aim to promote uniformity in headings appearing in bibliographic records produced for the international exchange within the framework of UBC. The recommendations were directed at solutions for the problems of current catalogues, not those for retrospective catalogues. The IFLA Section on Cataloguing started to update it in the 1990s but then decided to take another direction and the focus shifted to the promotion of international sharing of corporate name headings in (national) authority files. The new publication, titled Structures of Corporate Name Headings⁸, was posted on the IFLANET in January 2001.

Feasibility of an international authority system

It was decided in 1978 to develop an international authority system. The terms of reference of a Working Group launched at the IFLA Conference in Strbské Pleso, in former Czechoslovakia (1978), were the following:

- to discuss and formulate the specifications for an international authority system to satisfy the bibliographic needs of libraries
- to develop the UNIMARC format for the exchange of authority data
- to develop the methods for the efficient and effective exchange of authority data.

Indeed there was still need for a standard that would stipulate the elements of the authority entry, the order of these elements, and specify a system of punctuation. In 1984, this was achieved by the publication of the *Guidelines for Authority and*

Reference Entries (GARE)⁹ and the first goal of the Working Group was thus fulfilled. Nearly ten years later, in 1993, the *Guidelines for Subject Authority and Reference Entries* (GSARE)¹⁰ were published.

The GARE were designed for print and microprint only. Since 1984 developments in new technology have been such that they dictated a revision of GARE. There has been also an increasing need for reducing costs of cataloguing and for further international sharing of bibliographic records. In addition, although the concept of UBC is still present, there is a growing perception of preserving different cultural traditions. With computer capabilities developing more sophistication, we can link the authority records created in one country according to one set of cataloguing rules with those in another country to facilitate sharing. It will, therefore, no more be mandatory to use the same form of heading in all countries since new technologies are now supplying automated devices for linking all authority records created by various national bibliographic agencies. The new edition, now in press at K. G. Saur, is titled Guidelines for Authority Records and References (GARR) and covers, of course, a wider range of media. It provides the specifications for authority and reference entries for names and authorities titles to be shared in print, microprint and machine-readable form. They include frames for authority information and references for all types of materials to be included in catalogues, legal and religious works, musical compositions and performances, works by individual and multiple authors known under one or more titles, as well as serial publications. These GARR as the previous guidelines deal only with the broader structure of entries and do not prescribe the actual form of headings, references, urls, as this information is considered as the territory of the national bibliographic agencies and of those responsible for cataloguing rules.

The second objective of the Working Group, to develop the UNIMARC format for authorities, was achieved when the first edition of the *UNIMARC/ Authorities*¹¹ was published in 1991. Before I present the UNIMARC/ Authorities format, I would like to summarize what has been done concerning the third objective to develop the methods for the efficient and effective exchange of authorities data.

There are still steps to take in order to fulfill this third objective. In 1993, in a report called *International Cooperation in the Field of Authority Data*¹², Madame Françoise Bourdon from the Bibliothèque nationale de France gave some recommendations including the creation of an International Standard Authority Data Number (ISADN).

At the end of an "International Seminar on Authority Files" held in St. Petersburg in 1995 several recommendations were addressed to UBCIM including "to resume work to facilitate the international exchange". A Working Group created in 1996 had the mission to reconsider this international system and to create an ISADN. The WG on "Minimal Level Authority Records (MLAR) and the ISADN" suggested that the international sharing of authority information would greatly assist libraries and national bibliographic agencies in reducing the costs of cataloguing and insisted on the usefulness of facilitating the international sharing of data. It recognized, however, that it was unrealistic to require that everyone uses the same form of headings and that it was important to allow the preservation of national differences in authorized forms of headings. These forms should best meet the language and cultural needs of the users. The final report¹³ listed data elements which are

mandatory when applicable for an internationally shared authority record. They are the following:

- record status
- type of record
- entity category
- encoding level
- record identifier / record control number
- International Standard Authority Data Number (ISADN)
- date entered on the file
- version identifier
- language of cataloguing
- character set/s
- script of cataloguing
- description rules
- source agency for the record
- differentiated or undifferentiated personal name
- authorized heading
- nationality of entity (can be "undetermined")
- variant forms of the authorized heading ('see' references)
- related authorized heading ('see also references')
- source citation note

Highly recommended are:

- bibliographical, historical or other information about the entity
- source data not found
- general notes.

The members of the WG decided that the concept of the ISADN should be reviewed later on. The WG had concerns about the costs and the infrastructure needed for maintaining such a system and thought that technological developments should be watched and that IFLA should cooperate with the archival community, with other professional associations, and with publishers. So another WG was created in 1999, titled "Functional Requirements And Numbering of Authority Records" (FRANAR). The WG has 3 priorities:

- 1 to define functional requirements of authority records, continuing the work that the "Functional requirements of bibliographic records" for bibliographic systems initiated.
- 2 to study the feasibility of an International Standard Authority Data Number (ISADN): to define possible use and users, to determine for what type of authority records such an ISADN is necessary, to examine the possible structure of the number and the type of management that would be necessary
- 3 to serve as the official liaison to, and work with, other interested groups concerning authority files such as ICA / CDS (International Committee on Archives / Committee on Descriptive Standards), ISO TC46, CERL (Consortium of European Research Libraries), etc.

A Conceptual Modeling of Controlled Names of Entities was created by the WG member from the Library of Congress, Ms. Barbara Tillett. She describes the entities and relationships found when one controls names of specific entities, using the same

terminology as in the FRBR (Functional Requirements of Bibliographic Records) study¹⁴:

- Persons
- Corporate bodies
- Bibliographic Entities
- Objects
- Places
- Events
- Concepts

The Working Group is currently engaged in reviewing the International Standard Archival Authority Record for Corporate Bodies, Persons and Families, ISAAR (CPF) from the International Council on Archives, Committee on Descriptive Standards. The WG is scheduled to meet in the spring and will discuss, among other issues, the idea of sharing authority control via Z39 50 and the possibility of testing authority control on the Web.

The UNIMARC/ Authorities format

The UNIMARC/ Authorities format was, as I said earlier, the result of the second objective of the IFLA Working Group. It was developed by an IFLA Steering Group on a UNIMARC Format for Authorities with members from Europe and North America. The 1991 edition was revised by the Permanent UNIMARC Committee for years, and a new enlarged edition has just appeared. ¹⁵

Purpose and scope

The primary purpose of the UNIMARC/ Authorities format is to facilitate the international exchange of authority data in machine-readable form among national bibliographic agencies.

The scope of UNIMARC/ Authorities is as follows: the format specifies the tags, indentations and subfield identifiers to be assigned to authority reference and general explanatory entry records in machine-readable form. The format defines tags for personal and family names, corporate bodies, meetings, geographic names, uniform titles for works not entered under specific authors, uniform titles for work by individual authors, and topical subjects. And it is considered that each national bibliographic agency (nba) is responsible for the creation of its national authority records in the UNIMARC/ A format. Each nba can receive machine-readable records in the UNIMARC/ A format from other nbas. And the format is intended to provide the information required for a range of bibliographic activities and thus includes content designation which may be essential to one or another of these activities, but not to all.

Maintenance of the format is ensured by the Permanent UNIMARC Committee of Experts (PUC) under the umbrella of the IFLA UBCIM Programme. The members of this Committee are worldwide experts. China and Japan are represented.

Additions and changes to the format are made only through the PUC. Proposals are usually submitted by UNIMARC users or creators of UNIMARC records. UNIMARC will not be modified to accommodate non-GARE or -GSARE cataloguing practices or indeed other practices contrary to the international standards on which it is based.

The UNIMARC/ Authorities format is part of the UNIMARC family which includes, in addition to the *UNIMARC/Bibliographic*¹⁶, the UNIMARC Classification Format (posted as draft on the IFLANET on November 2000)¹⁷ and the UNIMARC for Holdings which is being drafted by a Working Group. It is an interdependent format and adheres to the same standards as the others. It assumes, for example, the use of ISO 2709-1996: Information and Documentation-Format for information exchange, as well as other ISO standards related to data processing and codes for representation of the names of countries and their subdivisions.

Definitions and formats correspondences

A list of definitions used in a special sense for UNIMARC/ A follows the introduction of the Manual. They pertain to Record and Entry Types, Heading Types, Record Components, Technical Elements of Records, etc. The format is designed according to an agreed set of principles. Where the same data elements appear in both formats, the content designators in UNIMARC/ A are the same as in UNIMARC/ B. This means that subfields for like data elements are the same in both formats, although the tagging scheme is different.

UNIMARC/ B and UNIMARC/ A

I will now come to the correspondence between UNIMARC Bibliographic and UNIMARC Authorities which it is necessary to emphasize for a proper understanding not only of UNIMARC/ A but also of the relationship between both formats. In UNIMARC Bibliographic the forms of headings for personal and corporate names, for the title, subject heading, etc., are rendered in their uniform forms with the subject identifier (#3) enabling the link to the authority record.

This is a table showing the correspondence between UNIMARC/ Authorities and UNIMARC/ Bibliographic:

UNIMARC/ Authorities Heading Fields		Heading Usage in UNIMARC Bibliographic Fields
200	Personal name	700, 701, 702 4 with embedded 700, 701, 702 600 604 with embedded 700, 701, 702
210	Corporate or meeting name	710, 711, 712 4 with embedded 710, 711, 712 601 604 with embedded 710, 711, 712
215	Territorial or geographic name	710, 711, 712 4 with embedded 710, 711, 712, 601, 607 604 with embedded 710, 711, 712
216	Trademark	716 [Reserved for future use]
220	Family name	720, 721, 722 4 with embedded 720, 721, 722 602 604 with embedded 720, 721, 712
230	Title	500 4 with embedded 500 605
	Name and title edded 200, 210, 215, and 230)	4 with embedded 7 and 500 7 604 with embedded 7 and 500 500
245 (embe	Name and collective title edded 200, 210, 215, or 220 and 230)	4 with embedded 7 and 501 604 with embedded 7 and 501 7 501
250	Topical subject	606
260	Place access	620
280	Form, genre or physical characteristics	608

Example of the correspondence at the subfield level:

UNIMARC/ Bibliographic

UNIMARC/ Authorities

700 PERSONAL NAME – PRIMARY 200 INTELLECTUAL RESPONSIBILITY HEADING - PERSONAL NAME

First indicator: Second indicator : 0 First indicator: Second indicator: 0

\$a Entry Element
\$b Part of Name Other

\$b Part of Name Other than Entry Element

\$c Additions to Names Other than Dates

\$d Roman Numerals

\$f Dates

\$g Expansion of Initials of Forename

\$3 Authority Record Number

\$4 Relator Code

\$a Entry Element

\$b Part of Name Other than Entry Element

\$c Additions to Names Other than Dates

\$d Roman Numerals

\$f Dates

\$g Expansion of Initials of Forename

\$4 Relator Code

\$x Topical Subdivision

\$y Geographical Subdivision

\$z Chronological Subdivision

Field 700, Personal Name – Primary Intellectual Responsibility as well as other "heading" 7-- and 5-- and 6-- fields in UNIMARC/ B contain a \$3 subfield for Authority Record Number. The corresponding \$3 subfield in the authority heading fields is only present in the 7-- fields of the UNIMARC/ Authorities for developing links between authority headings in different languages and/or scripts within the same authority file.

The authority heading for personal name, as well as all other UNIMARC/ Authorities heading fields, has subfields for subject divisions (\$x, \$y, \$z). Namely, the UNIMARC/ Authorities provides an integrated format for both format and subject authority cataloguing.

The design of UNIMARC/ A follows the stipulations of GARE in relation to identification of certain data elements. GARE identifies three types of entries:

- 1) the authority entry / now called authority record in the new edition (GARR)
- 2) the reference entry
- 3) the general explanatory entry now called general explanatory record and entry

Correspondence of UNIMARC / Authorities and GARE

UNIMARC/ A GARE

Content Record Areas Specified in GARE

Present in all types of records:

0-- Identification Block ISADN area (where applicable)

1-- Control Information Block

8-- Source Information Block Cataloguer's note area, Source area

Authority entry record: (Type of record = x)

2-- Heading block (uniform heading)
Authority heading area
Information note area

300 Information note
305 Textual see also reference note
4-- See reference tracing block
Information note area
See reference tracing area

5-- See also reference tracing block

See also reference tracing area

7-- Linking heading block Authority heading area

Reference entry record: (Type of record = y)

2-- Heading block (variant heading) Reference heading area

300 Information note area 310 Textual see reference note Uniform heading area

7-- Linking heading block Reference heading area

General explanatory entry record: (Type of record = z)

2-- Heading block (explanatory heading)

320 General explanatory reference note Information note area

Explanatory heading area

7-- Linking heading block Explanatory heading area

The UNIMARC/ Authorities Format (2nd edition)

Record Label

This area of the record which contains general information for processing the record is constructed according to ISO 2709 stipulations. It occurs at the beginning of each record and in the case of UNIMARC/ A, certain character positions are specifically defined. They are: Record Status, Type of Record within Implementation Codes and the Encoding Level within Additional Record Definitions. The Record Label consists of the following information:

- 1) Record Length
- 2) Record Status
 - c= corrected or revised record
 - d= deleted record
 - n= new record
- 3) Implementation Codes
 - Type of Record
 - x= authority entry record
 - y= reference entry record
 - z= general explanatory entry record
- 4) Indicator Length
- 5) Subfield Identifier Length
- 6) Base Address of Data
- 7) Additional Record Definition
 - **Encoding Level**
 - #= full
 - 3= partial
- 8) Directory Map which provides details of the length and structure of the directory entry for each of the UNIMARC field.

Functional Blocks

The fields of the record are divided into functional blocks as is UNIMARC Bibliographic, the first digit of the tag indicating the block of the field. The functional blocks are:

- 0-- Identification Block: contains numbers that identify the record or the authority, e.g., the record identifier, the ISADN
- 1-- Coded Information Block: contains fixed length data elements (frequently coded) describing various aspects of the record or data, e.g., the language of cataloguing, the script...
- 2-- Heading Block: contains the authority, reference, or general explanatory heading for which the record has been created, e.g., personal name, corporate body name, topical subject heading, etc.
- 3-- Information Note Block: contains notes, intended for public display, that:
 1) explain the relationship between the record heading (2--) and other headings; 2) contribute to the identification of entity described in the authority record, e.g., information note, general scope note.

- 4-- See Reference Tracing Block: contains variant headings from which a reference is to be made to see the heading of the record. The language of the field corresponds to the 2-- Heading Block fields.
- 5-- See Also Reference Tracing Block: contains related uniform headings from which a reference is to be made to see also the heading of the record. The layout of the fields corresponds to the 2-- Heading Block fields.
- 6-- Classification Number Block: contains classification numbers that are related to the heading of the record, e.g., UDC, DDC, LCC...
- 7-- Linking Heading Block: contains a form of the record heading (2--) in another language or script and links to another record in which that form is the 2-- heading. The layout of the field corresponds to the 2-- Headings Block fields with an additional field for record linking.
- 8-- Source Information Block: contains the source of the record, and cataloguer's notes about the data not intended for public display.
- 9-- National Use Block: contains data local to the originator of the record. Field tags will not be defined in UNIMARC/ Authorities for intersystem exchange. Those fields are not to be internationally exchanged.

Control Subfields

They are defined at the end of block 1-- Coded Information Block but may not be used in conjunction with fields in the 1-- block. They are defined for all 2-- heading, 4-- and 5-- tracing, and 7-- linking heading fields although, since they are used only in specific circumstances, they will not appear in some blocks. Some of them may also appear in the 3-- Note fields. They carry additional information about a heading, tracing, or note. They are as follows:

\$0 Instruction phase

This can be used when displaying the tracing as a reference.

\$2 Subject system code

This subfield identifies the subject system in which the heading or tracing belongs.

- \$3 Authority entry record number
 - This identifies a record in which the heading described is the authority or reference heading.
- \$5 Tracing control

This contains coded data pertinent to the use or display of 4-- and 5-- reference tracings.

The following code values are defined:

a = earlier headingf = real namej = married nameb = later headingg = broader termk = name before marriaged = acronymh = narrower terml = shared pseudonyme = pseudonymi = name in religionm = secular namez = other

\$6 Interfield linking data

This subfield allows linking different fields for processing purposes.

- \$7 Script of cataloguing and Script of the base of the heading
 This subfield identifies the scripts of cataloguing and the base heading when they are
 different from the information coded in the 1-- block. \$ 7 is used when a tracing is
 carried in multiple scripts for example in Japanese: kanji or kana, or in Hebrew:
 Hebrew script or Roman script.
- \$8 Language of cataloguing and language of the base heading
 This is to identify the language of this heading when it differs from the one defined in
 the 100 field.

I will come back to \$7 and \$8 when discussing alternative script data.

Types of entry

Authority Entry Records

The authority entry record has value "x" in the Record Label, character position 6. UNIMARC/ A is primarily designed for the communication of authority entry records for uniform headings. These may also carry tracings of variant or related headings from which reference entries are generated for display.

Example

- 210 02\$aPittsburgh Research Center [uniform heading as authority heading]
- 410 01\$aUnited States.\$bBureau of Mines.\$bPittsburgh Research Center [variant heading as see reference tracing]
- 510 02\$5a\$aPittsburgh Mining and Safety Research Center [related heading as see also reference tracing]

Reference Entry Records

The reference entry record has value y in the Record Label, character position 6. These records are only made when see references are too complex to be adequately generated from see reference tracings in authority entry records.

Examples

Record 1 (Reference entry record)

200 #1\$aKacew\$bRomain [variant heading as see reference heading]

310 0#\$aÉcrit sous deux pseudonymes\$bAjar, Émile)\$bGary, Romain [textual see reference note]

Record 2 (Authority entry record)

200 #1\$aAjar\$bEmile

400 #1\$5z0\$aKacew\$bRomain [variant heading as see reference tracing with display suppressed]

Record 3 (Authority entry record)

- 200 #1\$aGary\$bRomain
- 400 #1\$5z0\$aKacew\$bRomain [variant heading as see reference tracing with display suppressed]

General Explanatory Entry Records

Those have value "z" in the Record Label, character position 6. They are made when see reference from explanatory headings are required.

- 210 12\$aConference... [general explanatory heading]
- 300 ##\$aConference proceedings are entered under the name of the conference, etc., or the title of the publication if the conference, etc., lacks a name. Thus, see also: Symposium..., Workshop..., etc. [general explanatory reference note]

Parallel data

There are two options if an agency needs to record headings in different languages:

Option 1

Parallel headings are recorded in separate authority entry records in which they are the authority heading and where their structure will be recorded in 4-- and 5-- reference tracing and 3-- Notes field. Records can be linked through the Block 7-- linking fields.

Example

Record 1

- 001 12345
- 210 02\$aNational Library of Canada
 - <Notes and tracing for an English language catalogue>
- 710 02\$367890\$8frefre\$aBibliothèque nationale du Canada

Record 2

- 001 67890
- 210 02\$aBibliothèque nationale du Canada
 - <Notes and tracing for a French language catalogue>
- 710 02\$312345\$8engeng\$aNational Library of Canada

Option 2

Parallel forms can be treated in one single record as single variant headings or references: 4-- or 5-- reference tracings with or without specifying the language.

- 100 ##\$aYYYYMMDDaswey0103####ba0
- 215 ##\$8sweswe\$aSverige
- 415 ##\$8sweeng\$aSweden
- 415 ##\$8swerus\$aShvetsiia
- 415 ##\$8swefre\$aSuède

Alternative Script Data

The script of cataloguing is identified in the 100 field but headings, notes and tracings can be in more than one script, for example, in Japan. Alternative scripts may reside in the same record or may be recorded in separate linked records. If there are separate records they are linked through the 7-- linking fields, the same way as for parallel data.

With the aim of specifying different scripts and languages of headings that reside in one record, \$ 7 and \$ 8 were extended. Previously only the language of cataloguing was specified in the record. The above-mentioned Working Group on MLAR identified language and script as significant barriers to exchange and re-use of data in the international environment. It was recognized as important to know the language of the base of the heading, that is the part of the heading that identifies the entity. It was also thought that it would facilitate automatic transliteration. Control subfield \$ 7 previously "Script of cataloguing" was extended and became "Script of cataloguing and script of the base heading." It contains 8 character positions. The first group relates to the script of cataloguing, the second group to the script of the base heading.

Fixed length data elements

Name of Data Element	Number of Characters	Character Positions
Script of cataloguing	2	0-1
Direction of the Script of cataloguing	1	2
Transliteration scheme for script of	1	3
cataloguing		
Script of base heading	2	4-5
Direction of script of base heading	1	6
Transliteration scheme for script of base	1	7
heading		

Codes for direction of the script are given

0= left to right

1= right to left

The transliteration scheme is also specified through the use of one-character alphabetic code.

\$ 8 previously called "Language of cataloguing" became "Language of cataloguing and Language of the base heading". It contains 6 character positions. The first group of three characters specifies the language of the catalogue in which the heading in the field is designed to fit and the second is related to the language of the base heading. UNIMARC language codes should be used (see UNIMARC Bibliographic Appendix A).

Fixed length data elements

Name of Data Element	Number of Characters	Character Positions
Language of cataloguing	3	0-2
Language of base heading	3	3-5

Example

- 100 ##\$aYYYYMMDDaengy03####ba0
- 101 ##\$ajpn
- 210 02\$\$7ba0yba0y\$8engjpn\$aNihon Toshokan Kyôkai\$cCompany
- 210 02\$\$7ba0ydb0y\$8engjpn\$a[Corporate name in Japanese kanji]\$cCompany
- 300 0#\$aReplaced Nihon Bunko Kyôkai and Dai Nippon Toshokan Kyôkai

Note: In both headings the language of cataloguing is English and the language of the base heading is Japanese. In the first heading the script of cataloguing (100/21-22) and the script of the base heading (101) are both Latin, in logical order (\$7/2 & 6) and follow ISO transliteration rules (100\$a/12 and 210\$7/7). In the second heading, the script of cataloguing is still Latin (100/21-22)), but the script of the base heading is Kanjii (\$7/4-5). The script is in logical order (\$7/3, but the base heading has not been transliterated.

This was one of the major revisions and we would very much appreciate your comments.

New fields

I would like now to say a few words on the reasons which dictated this extensive revision of the first edition. They are stated in the Foreword to the Second Edition and I have also mentioned the context in my introduction.

It is obvious that in the 10 years which elapsed since the publication of the first edition, developments in telecommunications and information technology have modified our environment very significantly. In 1991 the Internet was hardly known and the World Wide Web did not exist.

The concept of Universal Bibliographic Control has evolved as the result of an infrastructure created by the WWW in which records can be more easily exchanged. We also modified the format in accordance with requests and recommendations from UNIMARC users as there is nothing which can substitute practical experience.

Basically, we have tried to make a clearer presentation of data and a layout consistent with UNIMARC/ Bibliographic. We have also tried to be consistent with the recommendations of the Working Group on MLAR mentioned earlier. And we have extended the format to facilitate links to electronic material. All changes were approved at meetings of the Permanent UNIMARC Committee in Zagreb, 1997, Moscow, 1998, Rome, 1999 and finally Lisbon in 2000. As for UNIMARC/ B the changes are listed in Appendix O.

This table gives you the list of the changes:

New fields

035 Control number of record derived from other sources

101 Language of the Entity

102 Nationality of the Entity

106 Coded Data Field: Personal/Corporate/Family Name/Trademark used as Subject Heading

120 Coded Data Field: Personal Names

123 Coded Data Field: Geographic Names

216 Heading - Trademark

260 Heading - Place Access

280 Heading - Form, Genre or Physical Characteristics

340 Biography and Activity Note

356 Geographical Notes

416 See Reference Tracing - Trademark

460 See Reference Tracing - Place Access

480 See Reference Tracing - Form, Genre or Physical Characteristics

516 See also Reference Tracing - Trademark

560 See also Reference Tracing - Place Access

580 See also Reference Tracing - Form, Genre or Physical Characteristics

716 Linking Heading - Trademark

760 Linking Heading - Place Access

780 Linking Heading - Form, Genre or Physical Characteristics

836 Replaced Heading Information

856 Electronic Location and Access

886 Data not Converted from Source Format

Changes in name and function of field

150 Coded Data Field for Corporate Names

New subfields/values

Leader: Character position 9 defined: type of entity

100 \$a Character position 12 transliteration table additional codes defined: d,e,f

100 \$a Character position 13-16 character set: additional codes defined, 08-10

100 \$a Character position 13-16 character set: additional code reserved, 11

100 \$a Character position 21-22 language of cataloguing: additional codes defined, ma, mb,

100 \$a Character position 23 defined: direction of script of cataloguing

Control Subfield \$7: name changed to "Script of cataloguing and script of the base heading" Character positions 4-7 defined as script of the base heading.

Control Subfield \$8: name changed to "Language of cataloguing and language of the base heading" Character positions 3-5 defined as language of the base heading.

2-- \$i Form Subdivision

4-- \$i Form Subdivision

5-- \$j Form Subdivision

7-- \$i Form Subdivision

Change to status

Control subfield \$3 permitted for use in 3-- block

Control subfield \$8 permitted for use in 2-- block

I shall now review the new fields.

0--

035 Other System Control Numbers

It contains the control number of records obtained from other sources, other cataloguing agencies.

Example

035 ##\$a(CaBVaU)2835210335

The control number was assigned by the University of British Columbia.

1--

101 Language of the Entity

This, as far as I remember, was mostly dictated by some of my compatriots' concerns. It contains coded information relating to the language(s) used by the entity identified in 2-- (i.e., a person, a corporate body or a work). \$a is the subfield for the language in which the author expresses him/herself or the original language of the work. Each subfield contains a three character language code. The codes are listed in ISO 639-2 standard and, with the permission of ISO, in Appendix A of the UNIMARC Manual.

Nationality of the Entity

This was also dictated by the French whereas it is not usually considered important by American colleagues. It concerns the nationality of a person, corporate body, family or a trademark. Subfields are \$a for country and \$b for locality. The codes for country are taken from the two-character codes of ISO 3166-1 also listed in Appendix B of UNIMARC/B, and for locality from ISO 3166-2.

Example

- 100 ##\sayyyyMMDDaengy03#####ba0
- 101 ##\$ager\$aeng
- 102 ##\$aUS\$aDE
- 152 ##\$aAFNOR
- 200 #1\$8engger\$aArendt\$bHannah\$f1906-1975
- 340 ##\$aGerman by birth. Naturalized American in 1951

We have then coded fields

- 106 Personal/Corporate/Family Name/ Trademark Used as Subject Heading
- 120 Personal Name
 - This is applicable to authority records in which tag 200 is present.
- 123 Coded Data Field: Territorial or Geographic Name contains the coordinate data of the entity described in block 2--

2--

216 Heading-Trademark

Trademark is described as a distinctive word, phrase, logo design or any other device that can be represented graphically, used by a business or a company to identify its products or services and distinguish them from others, e.g., Levi's.

Example

216 ##\$aKitekat

260 Heading - Place Access

It contains an access point form of place of publication, production, etc., and may include the name of a country, state or province, country and/or city.

Example

260 ##\$dRoma

280 Heading - Form, Genre, or Physical Characteristics

It contains a term or terms indicating the form, genre and/or physical characteristics of the items being described used as a heading, e.g., a thesaurus for use in rare book and special collections cataloguing.

Example

152 ##\$brbgenr

280 ##\$aDictionaries\$xFrench\$z18th century

The item is a French Dictionary published in 1770

3--

340 Biography and Activity Note

This is to record those notes about the entity recorded in 200 or 220.

Example

102 ##\$aUS\$aDE

152 ##\$aAFNOR

200 #1\$8engger\$aArendt\$bHannah\$f1906-1975

340 ##\$aGerman by birth. Naturalized American in 1951

356 Geographical Note

is used to record such notes about the entity recorded in the 215 field.

4--

We have added in this block see reference tracings

416 Trademark

460 Place Access

480 Forms, Genre, or Physical Characteristics

5--

And we added the same for see also reference tracings in Block 5-516, 560 and 580.

7--

We also added new fields in the Linking Heading Block

716 Trademark

760 Place Access

780 Form, Genre or Physical Characteristics

8--

In the Source Information Block we have three new fields.

836 Replaced Heading Information.

This is used to record the reason why the heading in the 2-- is being replaced by authority file.

Example

Record Label, character position 5 = c (corrected record)

250 ##\$aOrphelinats

836 ##\$aOrphelins et orphelinats\$d19930629

856 Electronic Location and Access

This field appeared in the second update of UNIMARC/B and was amended in the third update (2000). It enables to locate an electronic item and may be used in an authority record to provide supplementary information available electronically about the entity for which the record was created. It can be used to generate the ISBD(ER) notes relating to mode of access.

Example

250 ##\$aPresidents' spouses\$zUnited States

856 4#\$ahttp://www.firstladies.com

886 Data Not Converted From Source Format

886 contains data for which there is no specific UNIMARC field. It is used when one agency converts records from another format.

Example

886 2#\$2usmarc\$a042\$b##\$alc

There is no equivalent in UNIMARC for USMARC's Authentification code.

As you can, see this was a rather extensive revision and it took several years to complete it. There were sometimes very long discussions during the meetings of the Permanent UNIMARC Committee, even arguments sometimes, but we always managed to come to some agreement.

We are aware that the pace of change is accelerating and that the format cannot remain stable. Its evolution is largely determined by requirements of users, you, for example. Whenever you have a request you can always submit it to IFLA UBCIM and it will be carefully considered by the PUC. The new edition of UNIMARC/A will be posted on the IFLA UBCIM homepage as was the first one.

I should like now to summarize what UNIMARC/A provides means for:

- building an authority database with a link to the bibliographic database in one system
- designing an OPAC in order to meet the needs of the end-users and facilitate their search
- constructing a unique authority database within the distributed system with the possibility of on-and-off-line distribution of data
- exchanging authority data, with or without bibliographic data, in ISO 2709 format nationally and internationally.¹⁸

Various projects show the importance of cooperation in developing methodology and compatible formats. European Project Author, for example, was a transnational application of name authority files which started in 1995 with 5 European Libraries responsible for authority files in various cataloguing rules, formats and languages.

May I add that the need to cooperate nationally and internationally is increasing, not only because of economic factors but also because the development of shared environment means that we are more and more dependent on one another. The Permanent UNIMARC Committee recognized this fact and keeps track of developments of other formats in order to align UNIMARC mostly with MARC21. This is facilitated by the fact that one of the PUC standing members is from OCLC.

In conclusion, I should like to acknowledge with gratitude the work of the Permanent UNIMARC Committee and it is a pleasure to have this opportunity to thank here the representatives of Japan, Ms. Naoko Harai and of China, Mr. Zhou Shengheng, now replaced by Ms. Jiang Min. A very special tribute goes to the editor of the new version, Mr. Alan Danskin, from the British Library, but also to Ms. Mirna Willer from the National and University Library of Croatia, Chair of the Permanent UNIMARC Committee, an international expert in the field who has provided useful advice and comments on this paper.

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