



IFLA Universal Bibliographic Control and
International MARC Core Programme (UBCIM)

Mandatory Data Elements for Internationally Shared Resource Authority Records

Report of the IFLA UBCIM Working Group on Minimal Level Authority Records and ISADN*

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1998

Introduction and Recommendations

The Working Group on Minimal Level Authority Records and ISADN suggests that international sharing of authority information would greatly assist libraries and national bibliographic agencies in reducing the costs of cataloguing while providing greater capability for sharing bibliographic records. While this Working Group was created under the auspices of UBCIM, we have come to realize that the IFLA goal of Universal Bibliographic Control by way of requiring everyone to use the same form for headings globally is not practical. There are reasons to use the form of names familiar to our own users, in scripts they can read and in forms they most likely would look for in their library catalogue or national bibliography. Therefore, this Working Group recognizes the importance of allowing the preservation of national or rule-based differences in authorized forms for headings to be used in national bibliographies and library catalogues that best meet the language and cultural needs of the particular institution's users.

To facilitate international sharing of authority data, we propose that each National Bibliographic Agency (NBA) makes its authority files available over the Internet within two or three years, using the IFLA home page to register current information about what is available and what restrictions are in force. Such a system would permit multi-file searching to be conducted across a range of authority files or a single national authority file as desired. Within this context, retrieval would be greatly enhanced by the use of some numbering mechanism to link the associated authority records created by the various agencies, either the local system record numbers or an International Standard Authority Data Number (ISADN) for the entity, as was suggested by IFLA in the 1970's.

We further propose that access to the shared authority files would be "Read Only." Searching and retrieval would be on a Read-Only basis. We propose that access to files for consultation or downloading (copy/paste, etc.) should prohibit editing any part of the original record by others than the home NBA. Any arrangement for cooperative record maintenance would be by separate agreement between cooperating institutions, and is a matter quite outside this report. This is both a practical approach to file maintenance and ensures that authority for editing data is retained by the NBA, which can be expected to have the most expertise in the local format, cataloguing code, and user expectations.

Please note that this exercise is limited to authority records for names of persons, corporate bodies, conferences, and for uniform titles and omits series, subject headings, and classification authorities.

The task was to identify the basic elements, provide a definition for each, and find which already exist in communication formats and suggest which should be recommended for addition to improve the formats. The Working Group will make recommendations to the PUC for changes to UNIMARC/AUTHORITIES and to the group working to update GARE.

The concept of an International Standard Authority Data Number (ISADN) will be reviewed again within the next five years. The Working Group has concerns about the expensive overhead in maintaining such a numbering system. We recommend waiting to see how the emerging international electronic environment and advances in developing technologies impact the linking of records. However, opportunities will be pursued of cooperating on such a

numbering scheme or linking of authority records with similar records from the archival community and the realm of publishers and professional associations that maintain databases of members and copyrights holders for royalties. We highly recommend a follow-on Working Group be formed in IFLA to pursue these new opportunities and to continue the work to develop a virtual shared resource authority file under the auspices of IFLA.

List of Mandatory Data Elements for Internationally Shared Resource Authority Records

The following matrix is a listing of data elements that are mandatory when applicable for an internationally shared authority record. Indication is provided after the name of the data element to show whether that element is repeatable or not. For definitions, see [UNIMARC/Authorities](#) (Saur, 1991) and the attached Appendix A: Glossary. Values are sometimes suggested for the data elements to help explain the meaning of the element.

Key

Data Element = Specific data element

R = Repeatable (N=Not repeatable or R=Repeatable)

Definition/Description = Description of data element and/or notes and questions

(NOTE: See Appendix A: Glossary for more complete definitions)

UNIMARC = location of the data element in the current UNIMARC Authorities format

MANDATORY

Data Element	R	Definition/Description	UNIMARC
RECORD IDENTIFICATION			
Record Status	N	Indication as to whether the record is new or modified. Indication of "intended to be deleted" is mandatory for exchanged records.	Record label
Type of Record	N	Code to indicate this is an Authority Record (Includes records for headings, general references, and explanatory entries)	Record label
Entity Category	N	Code to show the type of entity	[To be a recommended addition to UNIMARC, as part of the record label]
Encoding Level	N	Special code to show if the record is minimal level or more complete	Record label
Record Identifier	N	Unique record identification (includes a system record control number or National Bibliography Number)	001

ISADN	N	International Standard Authority Data Number [To be mandatory when such a number is developed]	015
Date Entered on the File	N	Date record first entered the local file. Also mandatory for exchanged records	100\$a/0-7: the date the record was entered into the system
Version Identifier	N	Date and time of latest transaction to modify the record in the "home" file. Also mandatory for exchanged records	005: This field consists of 16 characters indicating the date and time of the latest record transaction
LANGUAGE			
Language of Cataloguing/Catalogue	R	Code(s) for the language(s) for which the authorized form of heading applies (Note: This is the language used by cataloguers for notes and qualifiers.)	100\$a/9-11: code for language used in cataloguing
Character Set(s)	R	Indication of the principal and additional character sets	100\$a/13-16, principal graphic character sets used in the record; 17-20, additional one
Script of Cataloguing/Catalogue	R	Code(s) for the script(s) used for the established form of heading and notes.	100\$a/21-22
AUTHORITY			
Descriptive Rules	N	Code for the descriptive cataloguing rules followed in establishing the heading and references.	152\$a
Source Library/Agency for the Record	N	Code for the library or NBA responsible for the record content	801
ENTITY			
Differentiated or undifferentiated personal name	N	Code to indicate whether the heading is for a differentiated or an undifferentiated personal name	[To be a recommended addition to UNIMARC]
Authorized Heading	N	Text of heading to be used as the controlled form in bibliographic records (**Need to add here the further elements of names and qualifying data viewed to be mandatory when applicable - the intention is that the full authorized form of the heading must be included)	2XX
Nationality of Entity	R	Indication of the nationality(ies) of the entity.	[To be a recommended

			addition to UNIMARC]
REFERENCES			
Variant Forms of the Authorized Heading ('See')	R	Text of variant form for name of the entity	4XX
Related Authorized Heading ('See Also')	R	Text of other authorized names related to the entity described (excludes parallel headings in other languages, scripts, etc.)	5XX
NOTES			
Source Citation	R	Citation for a consulted source or the item catalogued which provided information about the authorized heading and/or variant forms	810

The following data elements are highly recommended:

Data Element	R	Definition/Description	UNIMARC
Biographical, Historical, or Other Information about the Entity	N		[To be a recommended addition to UNIMARC]
Source Data Not Found	R	Citation for sources examined but heading not found	815
General notes	R		3XX

Comments on Mandatory/Optional

All mandatory data must be included in shared records at the minimum. Additional information may be included as appropriate (see Appendix C for list of both mandatory and optional data elements and identification of where those elements now appear in various communication formats).

Whether a data element is mandatory or optional may depend on whether the record is used for an exchange or is only to be viewed online or in a "snapshot" (a view frozen in time). "Record status," "Date entered on file," and "Version identifier" are elements that are mandatory only for exchanged records, and are optional for records viewed online or through a snapshot. "Intended to be deleted" is the code used in exchange of records to notify the receiving institution or system that the copy of the record in the database should be deleted.

It should be noted that the focus of this report is on records intended to be shared online via the Internet rather than exchanged, however, the above table also indicates mandatory elements for records that are exchanged. Additionally, these are elements that should appear in all records that are considered "national level" and made available for online sharing. Records may be

considered as "national level" records when they are created following nationally accepted standards.

It should also be noted that the ISADN (UNIMARC field 015) would be a mandatory element in the future when it is developed.

Nationality is listed as mandatory, but it is recognized that it may be set as "undetermined" for those countries that do not normally provide the element. However, it is highly recommended that this element be provided. Future work will be to explore the provision of a code for nationality.

Appendix A: Glossary

Glossary

NOTE: Terms in this Glossary supplement terms found in UNIMARC/Authorities and Guidelines for Authority and Reference Entries and are provided here to assist in the understanding of terms used in the report and appendices.

Access point	A name, term, code, etc. under which a bibliographic record may be searched and identified. <i>See also Heading</i>
Agency making the record available	The distributor of the authority record. <i>See also Originating source</i>
Authorized parallel heading	<i>See Parallel heading</i>
Authority entry	An entry in an authority file for which the initial element is the uniform heading for an entity (person, corporate body, or work) as established by the cataloguing agency responsible. In addition to the uniform heading, the entry contains, as applicable: information notes; a record of all variant and related headings from which references have been made (tracings); notes recording sources consulted, etc.; an identification of the cataloguing agency responsible for the entry; and (when implemented) the International Standard Authority Data Number (ISADN).
Authority entry record	A machine-readable record for an authority entry .
Authority heading	The uniform, controlled heading for an entity . Also known as Uniform heading .
Authority record	A machine-readable record for authority references and entries. <i>See also Authority entry record</i>
Bibliographic entity	A bibliographic manifestation of a work.
Bibliographic identity	Each name used in authorship (excluding variant forms). A single entity (e.g., person, corporate body, or work) can have more than one bibliographic identity, for example: real name and pseudonym(s); current and former name(s); conventional name or uniform title for a work. Different bibliographic identities are accorded equal weight by some cataloguing rules and linked by means of <i>see also</i> references, or in other rules are handled through <i>see</i> references or added entries.
Character set	A character set is the complete set of characters supported by a particular system, used by a

	particular institution or described by a national or international standard. Character sets are standardized and published to facilitate the transfer and exchange of electronic data. This data element is typically indicated by means of a code in a machine-readable record.
Date entered on file	The date the machine-readable record was entered into a system as an indication of the currency of the record, typically indicated by means of eight numeric characters for the year, month, and day.
Descriptive cataloguing rules	The cataloguing rules used by a bibliographic agency to describe the physical characteristics and bibliographic relationships of an item.
Differentiated personal name	A unique personal name heading which is distinguished from all others by the addition of qualifying data. Qualifying data may be added to the authority heading or included as qualifying information in the authority record in accordance with the standards followed by individual agencies.
Encoding level	The degree of completeness of the machine-readable record. This data element is typically indicated by means of a code in a machine-readable record.
Entity	The person, corporate body, or work represented by a uniform heading or entity identifier .
Entity category	The identification of the type of entity represented in an authority record .
Entity identifier	The name of a person or institution; the title of a work. The element of the uniform heading that excludes qualifiers and other information provided by the cataloguer.
Heading	A name, word, or phrase placed at the head of a catalogue entry to provide an access point. <i>See also Access point</i>
ISADN (International Standard Authority Data Number)	A standard number proposed to identify and collocate entities independently of national authority headings. [The ISADN has not yet been developed.]
Language	[NOTE: A distinction is made between the language of cataloguing and the language of the entity .]
Language of catalogue	<i>see Language of cataloguing</i>
Language of cataloguing	The intended language(s) for which the uniform heading applies. The language(s) in which qualifiers, notes, and guidance are provided

	within the authority record . In some cataloguing rules the language of cataloguing will be the same as the language of the users of the catalogue. It will not necessarily be the same as the language of the entity . This data element is typically indicated by means of a code in a machine-readable record.
Language of the entity	The language appropriate to a person, corporate body, or work represented in the uniform heading .
Mandatory	A qualification indicating that a data element (field, subfield, or code) is not appropriate for all cases; in cases where it is appropriate it must be present.
National authority file	The set of authority records usually created and maintained by a National Bibliographic Agency.
National Bibliographic Agency (NBA)	The agency responsible for bibliographic control within a country.
National Bibliographic Agency record number	A number assigned by the National Bibliographic Agency to uniquely identify each record it has created.
National bibliography number	<i>See National Bibliographic Agency record number</i>
Nationality of entity	The nationality of the entity, established by birth, residence, or naturalization for a person, by national laws which govern a corporate body, or by the country in which a work is composed. The nationality may determine the form of name used in cataloguing, depending on the cataloguing rules. (Cf. <i>Names of Persons</i>)
Optional	Data elements described as optional either: a) meet the needs of specific NBAs; or b) address specific circumstances. They are not generally applicable, but their use is recommended where appropriate.
Originating Source	The agency responsible for the creation of the authority record . <i>See also Agency making the record available</i>
Parallel heading	An alternative, authorized form of the authority heading based on another language form or script of the name or title, or a form in the same language, formulated according to different rules. Parallel headings are established by National Bibliographic Agencies or other authorized institutions, in accordance with their specific requirements.

Qualifying data	Information added to an entity identifier by the cataloguer, as prescribed by the cataloguing rules, to uniquely distinguish an entity from others of the same name or title. This includes qualifiers, titles of nobility, and other identifying elements.
Record identifier	The record control number assigned by the organization creating, using, or distributing the record. Includes system-generated record control number, National Bibliographic Agency record number, and ISADN.
Record status	Indication as to whether the record is new, modified, or intended to be deleted.
Related heading	One of two or more uniform headings , each of which is bibliographically related to the other(s).
Responsible agency	<i>see Originating source</i>
Source agency	<i>see Originating source</i>
Source citation	The identification of a reference source or the item catalogued in which information about the heading or variant forms was found.
Type of record	Indication of whether the record is for bibliographic information, authority data, holdings information, etc. This data element is typically indicated by means of a code in a machine-readable record.
Undifferentiated personal name	A personal name heading which, because it cannot be uniquely distinguished, conflicts with or normalizes to match another personal name heading. When distinguishing information becomes available, differentiated headings are established for each distinct bibliographic identity .
Uniform heading	A heading established in a form to be followed without variation in displays of bibliographic records within a given catalogue or catalogues. Also known as (i.e., prefer) Authority heading .
Variant heading	A heading in a form other than that established as the uniform heading. Generally such a heading is either based on a variant name sometimes used by the person or corporate body itself, or sometimes used by others to identify the person, corporate body, or work; or constructed in a pattern different from that used to establish the uniform heading.
Version identifier	The date and time the record was updated, indicating a change was made from an earlier version. This data element is typically indicated

by means of numeric characters for the date and time. In a shared cataloguing environment, it is important to ensure that only the latest version of the record is used when changes are made.

Appendix B: Examples

Examples

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Examples are provided by :

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The British Library (Boston Spa)
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USA (USMARC)
Diane C. Humes & Barbara B. Tillett
Library of Congress
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Examples are sorted by format :

Format	Examples n°
AAAFMARC (United Kingdom)	1 - 2
BLMARC (United Kindom)	3 - 18
CANMARC (Canada)	19 - 26
FINMARC (Finland)	27 - 35
INTERMARC (France)	36 - 45
KBRMARC (Belgium)	46 - 52
MAB (Germany)	53 - 59
UNIMARC (Croatia)	60 - 67
USMARC (USA)	68 - 73

Partners were asked to provide the same examples to facilitate the comparison between formats. The following authority records were required with accompanying comments :

- for names of persons :

Shakespeare, William
Solzhenitsyn, Aleksandr
- for corporate bodies

United Nations
Institut du monde arabe
- for uniform titles

Bible
Bible - Genesis
- for name/title

a work of Beethoven

Unfortunately required examples were not available in each national authority file. Extra examples were provided by each partner. Some of them were added to this appendix.

INDEX OF EXAMPLES

Authority record	Example(s) n°
Ahonen, Eli (<i>and pseudonyms</i>)	29
Air Canada	22
Atwood, Margaret (and her works)	26
Beethoven, Ludwig van (<i>and his works</i>)	5, 25, 34, 35, 45, 59, 73

Bible ...	16, 17, 23, 32, 33, 43, 44, 51, 52, 58, 67, 72
Budinic, Sime	63
Centre d'études sur l'U.R.S.S.	15
Cicero, Marcus Tullius	6
Congregatio de propaganda fide (Roma)	66
Elizabeth II, Queen of Great Britain	7
European Community	12
France. Ministère de la culture ...	42
Hall, Don Alan	1
Hildegardis Bingensis	55
Institut du monde arabe	41, 50, 57, 71
Jerkovic, Matija	64
Microsoft Excel (Computer File)	18
Nations Unies <i>voir</i> United Nations	
Nicolini da Sabbio	39, 62
Opetusministeriö	31
Palmer, John	9
Rice, Anne	10
Richler, Mordecai	20
San Antonio (<i>and pseudonyms</i>)	38
Scott, Peter	2
Shakespeare, William	3, 19, 27, 36, 46, 53, 60, 68
Solzhenitsyn, Aleksandr	4, 28, 37, 47, 54, 61, 69
Thomas Aquinas, Saint	8
United Nations.	11, 21, 30, 40, 48, 49, 56, 65, 70
United States. Department of agriculture ...	14
Wakefield Healthcare	13
X - files (Television program)	24
Yhdistyneet kansakunnat <i>voir</i> United Nations	

The examples are not in machine-readable form but are included in the printed version available from the UBCIM Office

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Appendix C: Matrix of Data Elements for Authority Records

The following matrix identifies data elements currently provided in communication formats used in some of the national libraries. The information was provided by representatives of those organizations.

Those elements deemed by this IFLA UBCIM Working Group to be mandatory to the sharing of authority information on an international scale are marked as "M" for "mandatory when applicable." Other data elements might well be useful in authority records and are indicated as "O" for "optional."

All mandatory data must be included in shared records at the minimum. Additional information may be included as appropriate.

Key

M = Mandatory according to the recommendations of this Working Group (Values: M=Mandatory when applicable for international sharing, O=Optional element)
R = Repeatable according to the recommendations of this Working Group (Values: N=Not repeatable or R=Repeatable)
Data Element = Specific data element

The remaining columns are for the communication formats identified to date.

UNIMARC

UNIMARC/authorities : universal format for authorities / recommended by the IFLA Steering Group on a UNIMARC Format for Authorities. -- Mu;"nchen : Saur, 1991. (UBCIM publications-new series ; v. 2) ISBN 3-598-10986-5

AAAFMARC (United Kingdom) and

BLMARC(A) (United Kingdom)

UKMARC and Anglo-American authority formats : a cataloguer's guide. -- The British Library, 1999 (in press). ISBN 0712310908

CANMARC (Canada)

Canadian MARC communications format : authorities. -- 3rd ed. -- Ottawa : Canadian MARC Office, 1988.

Croatian UNIMARC

UNIMARC za pregledne katalogne jedinice i uputnice. -- Zagreb: Hrvatsko knjižničarsko društvo, 1999 (in press).

FINMARC (Finland)

FINMARC auktoriteettiformaatti / toimittanut Liisa Sten. Korj. versio. -- Helsinki :Helsingin yliopiston kirjasto, 1995. -- 14 lehtea;". -- ISBN 951-45-7095-2 (nid.)

INTERMARC(A) (France)

INTERMARC (A) intégré : format d'autorité, version 2.0, avril 1998 / Bibliothèque nationale de France, Bureau de normalization. - Paris : BnF, 1998. - [212 p. multigr.]. - Unpublished.

KBR MARC (Belgium)

[KBR = Koninklyke Bibliotheek = Bibliothèque Royale] Handleiding VUBIS = Manuel VUBIS (includes KBR format for titles and for authorities)

MAB (Germany)

MAB2 : Maschinelles Austauschformat für Bibliotheken / Herg. in Zusammenarbeit mit dem MAB-Ausschuss im Auftrag der Deutschen Forschungsgemeinschaft. - Leipzig : Deutsche Bibliothek, 1995. ISSN 0949-5258; ISBN 3-922051-70-7

(Includes MAB-Format für Titeldaten (MAB-TITEL); MAB-Format für Personennamen (MAB-PND), and MAB-Format für

Körperschaftsnamen (MAB-GKD).)

PND (Authority File for Personal Names)

GKD (Authority File for Corporate Bodies)

SWD (Authority File for Subject Headings)

USMARC

USMARC format for authority data : including guidelines for content designation / prepared by Network Development and MARC Standards Office. -- 1993 ed. [with Update no. 1, July 1995]. -- Washington, D.C. : Library of Congress, Cataloging Distribution Service, 1993-1995.

MATRIX OF DATA ELEMENTS FOR AUTHORITY RECORDS

Prepared by the IFLA UBCIM Working Group on Minimal Level Authority Records and ISADN

Table is available in [Adobe Acrobat PDF format only \[95 KB\]](#)

NOTES

KBR MARC includes authority data for authors and for publishers, as indicated in the fixed field: b;/=author only; x=publisher or publisher and author. The authority data are designated as for a Dutch language catalogue, a French language catalogue, or a bi-lingual catalogue. The parallel information is in one and the same record. The "meeting" information is characterized in the fixed field. For see also references, the records are linked via IDN# and no other information (e.g., text of the heading) is added.

INTERMARC(A) also includes many notes to be used only when the authority record is prepared to be part of a biographical dictionary (of concern to interpreters, graphic artists, and technical assistants).

1. All records are available for use in the Dutch language catalogue, the French language catalogue, and the bi-lingual catalogue, (there is no language code) language of target catalogue: Language codes are given at the field level as indicators: b;/=appropriate for both Dutch and French catalogues; n=Dutch; f=French.
 2. Coded data in addition to those already mentioned above: Leader/17, National or foreign entity: #=authority record established for a national name or title; 1=authority record for a foreign name or title, downloaded without any update from a foreign authority file; 2=other; 1XX \$w/01, 4XX \$w/01, 5XX \$w/01: 0=the form contained in the field has an international value (e.g., Joannes Paulus II (pape)); 1=the form contained in the field is a common one (e.g., Jean-Paul II (pape)); 008/14-16 Language of the entity: (use lang. Code from ISO 639-2); ###=not applicable; und=undetermined; mul=several languages with a predominant one - also use 041 field (language of the entity) when mul is used: 041 indicators ##; subfields \$a (repeatable)= original language, \$t (repeatable)=translation language; 008/17, Sex (for names of persons only): m=male, f=female, #=n.a.; 008/19-20, Composition code for music uniform titles only: two character code from table (e.g., co=concerto; sn=sonata, etc.); ##=n.a.; 008/22-23 Type of corporate body: two character code from table (e.g., b1=library; h.=hospital; am2=art gallery; v3=tour operator, etc.); ##=n.a.; 008/25-26, Administrative activity of the corporate body: two character code from table (e.g., 12=Prime Minister; 54=tourism; 83=merchant marine); ##=n.a.; 045, Activities of the entity for personal names and corporate bodies: ## indicators; subfields: \$a=intellectual o; artistic activity:: a=author; i=interpreter; g=graphic artist; etc.; \$c=commercial activity: a=audiovisual producer; e=publisher; i=printer; r=bookbinder; m=seller of engravings; etc.; \$d=type of document concerned; a=printed document; b=manuscript; c=printed or manuscript music; o=medal or coin; etc.; 048, Number of instruments or voices (for music uniform titles): ##=indicators; subfields: \$a=performer or band: two character code from table (e.g., sa=violin; ta=harp; etc.); \$b=soloist: two character code from table and two characters for the number
-