BIB-2 ATTRIBUTE SET (Z39.50)

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BIB-2 ATTRIBUTE SET
(Z39.50)

SCOPE

The Bib-2 Attribute Set is designed for use when searching bibliographic databases containing descriptions of a wide range of bibliographic materials, created according to accepted cataloguing rules such as the Anglo-American Cataloguing Rules.

Typically, this information is available in library bibliographic databases or online public access catalogues. Servers hosting these databases most likely can present records in a MARC record syntax based on ISO 2709. Attributes specifically used in citation databases (e.g., from abstracting and indexing services) are out-of-scope in this version of the Bib-2 Attribute Set.

The Bib-2 Attribute Set is formulated according to the Z39.50 Attribute Architecture. A significant feature of the Z39.50 Attribute Architecture is its emphasis on using attributes from other established sets. The Bib-2 Attribute Set uses attributes from the Cross-Domain Attribute Set and the Utility Attribute Set. Due to this use, only three new access point attributes were defined for Bib-2: Duration, Geographic Referent, and Map Scale. In addition, three Format/Structure attributes were defined as part of the Bib-2 Attribute Set.

In this architecture, the use of semantic qualifiers and content authorities provides additional refinement. For example, Bib-2 defines semantic qualifiers, such as Series title, Subtitle, and Uniform title, which are used to qualify the Cross-Domain Attribute Set Title Access Point attribute.

There is a separate and closely related attribute set, the MARC (MAchine Readable Cataloguing) Attribute Set, which identifies the searching attributes in terms of the numeric MARC tags. As a principle, attributes with one-to-one relationships with MARC tags, such as Bibliographic Level, Record Status or Record Linking Type, will be defined only in the MARC Attribute Set. Note that although citations to MARC 21 and UNIMARC tags in this attribute set have been included to help define the Bib-2 attributes, they are not meant to be restrictive nor as an implementation guideline.

Attribute sets for special material types, such as music and cartographic materials, may be defined in the future. It is anticipated that these sets will use attributes from the Bib-2, Cross-Domain, and Utility Attribute Sets in the same way as the Bib-2 Attribute Set uses attributes from the latter two sets.

In Bib-2, each access point attribute definition consists of the attribute name, a textual definition, tables of values defined for the related attributes appropriate for use with the access point. As well, descriptive examples are provided for each access point definition in the Bib-2 set. These illustrate how each access point attribute and its related attributes types might be combined for use in a Z39.50 query. The examples are simply segments of such queries and are not intended to represent complete Z39.50 queries.

BIB-2 ATTRIBUTES

INTRODUCTORY NOTES

For most Bib-2 attributes, values are numeric characters specified in tables in this document. In addition, for specific attribute values, existing standard lists of values that provide coverage of the topic may also be identified as a source. For example, values for the Content Authority for Topical Subjects can be taken from the Classification Sources list maintained by the Library of Congress as a part of the *MARC Code List for Relators, Sources, Description Convention Codes.* When the codes listed in these external sources are used as attribute values, they should be treated as case-insensitive.

The descriptive examples are provided for each attribute definition in the Bib-2 set. These illustrate how each access point attribute and its related attributes types might be combined for use in a Z39.50 query. The examples are simply segments of such queries and are not intended to represent complete Z39.50 queries. Attributes are those defined by this Bib-2 Attribute Set specification, unless indicated otherwise.

DEFINITION OF BIB-2 ACCESS POINT ATTRIBUTES

The following table lists the access point attributes that are defined as part of the Bib-2 Attribute Set. The Bib-2 set also identifies values for related attributes types for possible use in conjunction with these access point attribute types. These include:

- Content Authorities (CA) for Geographic Referent

- Semantic Qualifiers (SQ) for Geographic Referent

- Format/Structure (F/S) for Duration

Table 1 Summary of Attribute Usage, Bib-2 Access Point Attributes

Value	Access Point Attributes	CA	SQ	F/S
1	Duration			X
2	Geographic Referent	X	X	
3	Map Scale			

In Bib-2, each access point attribute definition consists of the attribute name, a textual definition, values defined for the related attributes appropriate for use with the access point, as well as descriptive examples.

DURATION (1)

Time. A formatted numerical representation of the playing time of the item, e.g., the duration of a sound recording or the stated playing time of a performance of printed or manuscript music [e.g., MARC 21 306$a / UNIMARC 127 $a]

By default, durations are to be formatted according to ISO 8601: 1988, Clause 5.5.3.2

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Format/Structure for Duration

1	ISO 8601:1988	From ISO 8601:1988 (E), Clause 5.5.3.2 Representation of duration of time: "A given duration of a period of time, whether or not associated with a start or end, shall be represented by a data element of variable length, preceded by the designator [P]…The part including time components shall be preceded by the designator [T]; the number of hours shall be followed by [H], the number of minutes by [M] and the number of seconds by [S]." • Basic Format: PnYnMnDTnHnMnS • Example: A period of 10 hours, 20 minutes and 30 seconds PT10H20M30S

Examples:

To search for a sound recording that is 20 minutes, 16 seconds in duration
    (1) Access point = (1) Duration
    (8) Comparison [Utility Set] = (3) Equals
    (9) Format/Structure = (1) ISO 8601:1988
    Term = PT20M16S or PT0H20M16S

GEOGRAPHIC REFERENT (2)

Code, text. Codes for the representation of names of countries and their subdivisions.

Content Authorities for Geographic Referents

The Content Authority for a Geographic Referent refers to the source of the term, for example, whether the term is a country code defined by ISO 3166-1 or a term from the Class G of the Library of Congress Classification.

1	ISO 3166-1	*Codes for the representation of names of countries and their subdivisions. Part 1: Country Codes* Includes textual names and related two-character codes.
2	Geographic Cutters	*Geographic Cutters. Class G, Geographic Cutters* • Source: MARC 21 033 $c
3	LC Class G	*Library of Congress Classification. Class G.* • Source: MARC 21 033 $b
4	MARC Code List for Countries	
5	MARC Code List for Geographic Areas	

Semantic Qualifiers for Geographic Referents

A Semantic Qualifier for a Geographic Referent identifies whether the Geographic Referent is the place of the publication, production or execution or the place of the event associated with the bibliographic resource.

1	place of publication, production or execution	• Sources: • MARC 21 008—All Materials cp15-17 • MARC 21 044 $a / UNIMARC 102 $a, $b • MARC 21 260 $a / UNIMARC 210 $a • MARC 21 752 / UNIMARC 620 $a, $b, $c, $d
2	place of event	Place of creation, capture or broadcast associated with an event, or location of a meeting or conference. • Sources: MARC 21 033 $b, $c; • MARC 21 110 $c / UNIMARC 710 $e 1st indicator = 0 • MARC 21 111 $c / UNIMARC 710 $e 1st indicator = 1 • MARC 21 710 $c / UNIMARC 711 $e 1st indicator = 0 • MARC 21 711 $c / UNIMARC 711 $e 1st indicator = 1 • MARC 21 043 / UNIMARC 660 $a

Examples:

These examples illustrate the structure of Geographic Referent segments of Z39.50 queries; they are not complete Z39.50 queries.

To search for an item published in Ontario, Canada
    (1) Access point = (2) Geographic Referent
    (8) Comparison [Utility Set] = (3) Equals
    (4) Content Authority = (4) MARC Code List for Countries
    (2) Semantic Qualifier = (1) place of publication, production or execution
    Term = onc

To search for an item published in Burnstown (a small town in Ontario, Canada)
    (1) Access point = (2) Geographic Referent
    (8) Comparison [Utility Set] = (3) Equals
    (2) Semantic Qualifier = (1) place of publication, production or execution
    Term = Burnstown

To search for the papers from a conference held in Belgium
    (1) Access point = Geographic Referent
    (8) Comparison [Utility Set] = (3) Equals
    (4) Content Authority = (5) MARC Code List for Geographic Areas
    (2) Semantic Qualifier = (2) place of event
    Term = e-be

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To search for recordings made (i.e., created) in Nashville, Tennessee
  (1) Access point = (2) Geographic Referent
  (8) Comparison [Utility Set] = (3) Equals
  (4) Content Authority = (3) LC Class G
  (2) Semantic Qualifier = (2) place of event
  Term = 3964
  Operator = AND
  (1) Access point = (2) Geographic Referent
  (8) Comparison [Utility Set] = (3) Equals
  (4) Content Authority = (2) Geographic Cutters
  (2) Semantic Qualifier = (2) place of event
  Term =.N2

To search for the papers of the European Regional Conference of the International Labour Organisation held in Geneva, Switzerland
  (1) Access point = (2) Geographic Referent
  (8) Comparison [Utility Set] = (3) Equals
  (5) Expansion/Interpretation [Utility Set] = (6) Masking
  (2) Semantic Qualifier = (2) place of event
  Term = Genev#

MAP SCALE (3)

Coded form of cartographic mathematical data, including scale, projection and/or coordinates related to the item. [E.g., MARC 21MARC 21 034, UNIMARC 123]

Examples:

To search for cartographic material with a scale of 1:250,000:
  (1) Access point = (3) Map Scale
  (3) Comparison [Utility Set] = (3) Equal
  Term = 250000

BIB-2 FORMAT/STRUCTURE ATTRIBUTES

The following table lists the Format/Structure attributes defined by the Bib-2 Attribute Set. This attribute is used primarily to help with the interpretation of a character string term; it provides guidance for the data type conversion process.

1	name, entry element [1]first	name with entry element first that the surname precedes the given name • Examples: Smith John Chiang Kai-Shek John the Baptist Leonardo da Vinci
2	name, comma-delimited, entry element first	name with entry element first, and separated from other name elements by a comma • Examples:

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[1] The entry element is defined by AACR2 22.4 as "that part of the name under which the person would normally be listed in authoritative alphabetic lists in his or her language or country of residence or activity"

		Smith, John Chiang, Kai-Shek John, the Baptist X, Malcolm Leonardo, da Vinci
3	name, entry element last	name with the entry element last ; In most instances, this is a name in direct order where the given name precedes the surname. Examples: John Smith, Malcolm X

Examples:

To search for a title containing the phrase "Rape of the Lock"
    (1) Access point [Cross-Domain Set]= (1) Title
    (9) Format/Structure [Utility Set] = (1) Adjacent words
    Term = rape of the lock

To search for the title containing both "rape" and "lock"
    (1) Access point [Cross-Domain Set] = (1) Title
    (9) Format/Structure [Utility Set] = (2) All these words
    Term = rape lock

To search for the title containing either "lock" or "ringlet" or "tress"
    (1) Access point [Cross-Domain Set] = (1) Title
    (9) Format/Structure [Utility Set] = (3) Any of these words
    Term = lock ringlet tress

To search for the name John Smith, formatting the term so that the surname precedes the given name
    (1) Access point [Cross-Domain Set] = (3) Name
    (9) Format/Structure = (1) name, entry element first
    Term = Smith John
To search for the name John Smith, formatting the term so that the surname precedes the given name and the elements are separated by a comma
    (1) Access point [Cross-Domain Set] = (3) Name
    (9) Format/Structure = (2) name, comma-delimited, entry element first
    Term = Smith, John
To search for the name John Smith, formatting the term so that the name is in direct order
    (1) Access point [Cross-Domain Set] = (3) Name
    (9) Format/Structure = (3) name, entry element last
    Term = John Smith

To search for the name Chiang Kai-Shek, structured with the entry element first
    (1) Access point [Cross-Domain Set] = (3) Name
    (9) Format/Structure = (3) name, entry element last
    Term = Chiang Kai-Shek
To search for the name Chiang Kai-Shek, structured with the entry element first, comma-delimited
    (1) Access point [Cross-Domain Set] = (3) Name
    (9) Format/Structure = (2) name, comma-delimited, entry element first

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Term = Chiang, Kai-Shek

To search for the name Malcolm X structured with the entry element first, comma-delimited
    (1) Access point [Cross-Domain Set] = (3) Name
    (9) Format/Structure = (2) name, comma-delimited, entry element first
    Term = X, Malcolm
To search for the name Malcolm X structured with the entry element last
    (1) Access point [Cross-Domain Set] = (3) Name
    (9) Format/Structure = (3) name, entry element last
    Term = Malcolm X

To search for the name John the Baptist, structured with the entry element first
    (1) Access point [Cross-Domain Set] = (3) Name
    (9) Format/Structure = (1) name, entry element first
    Term = John the Baptist
To search for the name John the Baptist structured with the entry element first, comma-delimited
    (1) Access point [Cross-Domain Set] = (3) Name
    (9) Format/Structure = (2) name, comma-delimited, entry element first
    Term = John, the Baptist

To search for the name Leonardo da Vinci, structured with the entry element first
    (1) Access point [Cross-Domain Set] = (3) Name
    (9) Format/Structure = (1) name, entry element first
    Term = Leonardo da Vinci
To search for the name Leonardo da Vinci structured with the entry element first, comma-delimited

    (1) Access point [Cross-Domain Set] = (3) Name
    (9) Format/Structure = (2) name, comma-delimited, entry element first
    Term = Leonardo, da Vinci

CROSS-DOMAIN ATTRIBUTES USED FOR BIBLIOGRAPHIC SEARCHING

USE OF CROSS-DOMAIN ATTRIBUTES

In addition to those access point attributes defined by the Bib-2 Attribute Set, the following table identifies those Cross-Domain access point attributes that are appropriate for use in the Bib-2 Attribute Set. For most of these Cross-Domain access points, the Bib-2 set also identifies values for related attribute types that are to be used as part of the Bib-2 Attribute Set. These include:

- Content Authorities (CA) for the Format, Language, Name, Resource Identifier, and Subject attributes,
- Format/Structure Attributes (F/S) for the Date attribute,
- Functional Qualifiers (FQ) for the Date, Name, and Subject attributes, and
- Semantic Qualifiers (SQ) for Description, Language, Name, Resource Identifier, Resource Type, Subject and Title attributes.

Table 2 Summary of Attribute Usage, Cross-Domain Access Point Attributes

Value	Access Point Attributes	CA	FQ	SQ	F/S
5	Date		X		X

4	Description			X	
7	Format	X			
10	Language	X		X	
3	Name	X	X	X	
8	Resource Identifier	X		X	
6	Resource Type			X	
2	Subject	X	X	X	
1	Title			X	

In some cases, values for functional or semantic qualifiers are assumed to be strings as specified in the MARC Relators, Sources, Description Convention Codes, or similar codes specified in the Appendices to the *UNIMARC Manual: Bibliographic Format*. The use of the values from one of these lists does not imply that the codes are expected to exist in the database or data being searched. How a server performs the search implied by the function code is specific to the database that the server is mapping. For instance, bibliographic databases based on MARC records can be expected to execute the search for function code "Author" by looking for the term in the MARC 21 fields 1XX and 7XX (UNIMARC fields 7--).

Note, however, that it is an error to perform a search less specific than the one requested. For instance, if an attribute list specified a functional Qualifier "owner" for a name, it is an error for a server to return search results with instances of that name as author. If the database does not support searching of the database by "owner", then the search should be failed.

DATE (5)

Date. A date associated with the creation or availability of the resource. [Cross-Domain set]

Format/Structure for Date

1	ISO 8601:1988	From ISO 8601:1998 (E), Clause 5.5. Combination of date and time of the day representations Basic Format: CCYYMMDDThhmmss[2] • Example: 9 April 1944, 12:30 19440409T1230

Functional Qualifiers for Dates

A Functional Qualifier for a Date describes the role played by the date associated with the bibliographic item or resource, for example, whether the date is that of creation, acquisition, copyright, etc.

1	acquisition date	• Source: MARC 21 541 $d
2	creation date	• Source: MARC 21 033 $a / UNIMARC 122 $a

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[2] Note: If searching a MARC database, formatted date information usually includes only the year, i.e. CCYY. Exceptions:
- If MARC 21 008 cp 6 = "e" *detailed date*, the date in 008 cp 7-14 is in the form CCYYMMDD / If the UNIMARC 100$a cp 8 = j, the following date in cp 9-16 is in the form CCYYMMDD
- Similarly, MARC 21 263 $a / UNIMARC 211 $a may contain an expected publication date in CCYYMM form.

3	date of conference	• Source: MARC 21 111 $d / UNIMARC 710/711/712 $f if 1st indicator = 1
4	publication date	• Source: MARC 21 008 cp 7-10 if cp 6 = s, t or q / UNIMARC 100 $a cp 9-12, if cp 8 = d, h or f • Source: MARC 21 008 cp 7-14 if cp 6 = e / UNIMARC 100 $a cp 9-16, if cp 8 = j
5	start date	• Source: MARC 21 008 cp 7-10 if cp6 = d or i, k, or m / UNIMARC 100 $a cp 9-12 if cp8 = b or g
6	end date	• Source: MARC 21 008 cp 11-14 if cp6 = d or i, k or m / UNIMARC 100 $a cp 13-16 if cp8 = b or g
7	copyright date	• Source: MARC 21 008 cp 11-14 if cp6 = t / UNIMARC 100 $a cp 13-16 if cp8=h
8	reprint date	• Source: MARC 21 008 cp 7-10 if cp6 = r / UNIMARC 100 $a cp 9-12 if cp8 = e
9	date of original	• Source: MARC 21 008 cp 11-14 if cp6 = r / UNIMARC 100 $a cp 13-16 if cp8 = e
10	date of distribution/release/issue	• Source: MARC 21 cp 7-10 if cp6 = p / UNIMARC 100 $a cp 9-12 if cp8 = i
11	date of production/recording session	• Source: MARC 21 008 cp 11-14 if cp6 = p / UNIMARC 100 $a cp 13-16 if cp8 = i

Examples:

To search for an item published in 2001:
    (1) Access point [Cross Domain Set] = (5) Date
    (8) Comparison [Utility Set] = (3) Equals
    (9) Format/Structure = (1) ISO 8601:1988
    (12) Functional Qualifier = (4) publication date
    Term = 2001

DESCRIPTION (4)

Text. An account of the content of the resource. [Cross-Domain set]

Descriptions should normally be searched as keyword phrases by specifying Expansion/Interpretation attributes as defined in the Utility Set. Use for bibliographic notes that provide general or specific comments or explanations on various aspects of bibliographic items.

Semantic Qualifiers for Description

A Semantic Qualifier for the Description access point identifies the type of description associated with the bibliographic item or resource, whether the description is, for example, an abstract, a contents note or a dissertation note.

1	abstract	Unformatted information that describes the scope and general contents of the described materials. • Source: MARC 21 520 if 1st indicator = 3 / UNIMARC 330 $a
2	contents	Note containing a formatted contents note, containing the titles of separate works or parts of an item. • Source: MARC 21 505 / UNIMARC 327 $a
3	dissertation	Note giving the designation of an academic dissertation or thesis and the institution to which it was presented. • Source: MARC 21 502 / UNIMARC 328

Examples:

To search for a dissertation awarded by University College, London
(1) Access point [Cross Domain Set] = (4) Description
    (9) Format/Structure [Utility Set] = (1) Adjacent words
    (2) Semantic Qualifier = (3) dissertation
    Term = University College London

FORMAT (7)

Code, text. The physical or digital manifestation of the resource. [Cross-Domain set]

Content Authorities for Format

The Content Authority for a Format access point refers to the source of the term, for example, whether the term is a Type of Record as defined in MARC 21 or UNIMARC, or a IANA media type.

1	ISBD	List of classes of library material or types of publications as defined in International Standard Bibliographic Description (ISBD). Includes both GMD (General Medium Description) and SMD (Specific Medium Description)
2	MARC 21	List of code values defined for MARC 21 Leader, cp 06, Type of record
3	IANA Media Types	Registry Media Types maintained by the Internet Assigned Numbers Authority (IANA)
4	UNIMARC	List of code values defined for UNIMARC Record Label, cp 06, Type of record

Examples:

To search for an specific item in braille
    (1) Access point [Cross Domain Set] = (7) Format
    (8) Comparison [Utility Set] = (3) Equals
    (4) Content Authority = (1) ISBD
    Term = braille

LANGUAGE (10)

Code, text. A language of the intellectual content of the resource. [Cross-Domain set]

Content Authority for Languages

The Content Authority for a Language refers to the source of the term; for example, whether the term is a language code listed in the MARC Code list for Languages or in ISO 639-1.

1	ISO 639-1	*ISO 639-1 Codes for the representation of names of languages-- Part 1: Alpha-2 Code*
2	ISO 639-2/B	*ISO 639-2, Codes for the Representation of Names of Languages Part 2: Alpha-3 Code. Bibliographic Codes*
3	MARC	*MARC Code List for Languages,* List of languages and their associated three-character alphabetic codes, used to allow the designation of the language or languages in MARC records.
4	Z39.53	ANSI/NISO Z39.53, *Codes for the Representation of Language for Information Interchange.*

Semantic Qualifiers for Languages

A Semantic Qualifier for a Language access point identifies whether the language is that of the original work described in the bibliographic item or resource or the language of translation or the language of an abstract.

1	original language of the work	Language of text, soundtrack, etc. if the item is in the original language of the work, or the language of the original work when the item being recorded is a translation. • Source: MARC 21 $a if 1st indicator = 0 / UNIMARC 101 $a if 1st indicator = 0 • MARC 21 $h if 1st indicator = 1 / UNIMARC 101 $c if 1st indicator = 1
2	language of translation	Language of text, soundtrack, etc. if the item is a translation of the original work • Source: MARC 21 a if 1st indicator = 1 / UNIMARC 101 $a if 1st indicator = 1
3	language of the abstract	Language of a summary or abstract of an item • Source: UNIMARC 101 $d

Examples:

To search for an item published in Zulu
   (1) Access point [Cross Domain Set] = (10) Language
   (8) Comparison [Utility Set] = (3) Equals
   (4) Content Authority = (2) ISO 639-2/B
   Term = zul

NAME (3)

String. A person or organization associated with the resource. [Cross-Domain set]

May be a word, phrase, or initialism intended to identify an institution or corporation.

Content Authorities for Names

The Content Authority for a Name term refers to the authoritative source of the term, for example, whether the term is listed in the British Library Name Authority File or Personennamendatei, the German authority file for personal names.

1	British Library Name Authority File	
2	Canadian Library Symbols	
3	Canadiana Authorities	
4	GKD	Gemeinsam Köperschaftsdatei, German authority file for corporate names
5	ISO 15511	International Standard Identifier for Libraries and Related Organisations (ISIL)
6	MARC Code List for Organizations	Contains short alphabetic codes used to represent names of holding institutions represented in the Library of Congress National Union Catalog (NUC).
7	NACO Name Authority File	
8	OCLC	
9	PND	Personennamendatei, German authority file for personal names
10	RLG	

Functional Qualifiers for Names

A Functional Qualifier for a Name describes the role played by the person or organization associated with the bibliographic resource. Values are assumed to be strings as specified in the *MARC Code List. Part I: Relator Codes*.
   <http://lcweb.loc.gov/marc/relators/relators.html>

List includes three-character alphabetic codes such as [aut] author, [pbl] publisher, [edt] editor.

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Alternatively, values may be strings as specified in *UNIMARC Manual: Bibliographic Format. Appendix C: Relator Codes*
http://www.ifla.org/VI/3/p1996-1/appx-c.htm

List includes three-digit codes such as 070 Author, 340 Editor, 650 Publisher.

NOTE: The use of either list does not imply that the codes are expected to exist in the database or data being searched. How a server performs the search implied by the function code is specific to the database that the server is mapping. For instance, bibliographic databases based on MARC records can be expected to execute the search for function code "Author" by looking for the term in the MARC fields 1XX and 7XX.

However, a server should not perform a search other than the one requested. For instance, if an attribute list specified a Functional Qualifier "owner" for a name, a server should not return search results with instances of that name as "author". If the database does not support searching of the database by "owner", then the search should be failed.

Semantic Qualifiers for Names

A Semantic Qualifier for a Name identifies the type of name associated with the bibliographic resource, whether the Name is, for example, a person or an organization.

1	conference	Use to express a search for a name of a meeting of individuals or representatives of various bodies for the purpose of discussing and/or acting on topics of common interest. • Source: MARC 21 111 / UNIMARC 710 1st indicator = 1 • MARC 21 711 / UNIMARC 711 1st indicator = 1/ UNIMARC 712, 1st indicator = 1
2	corporate	Use to express a search for a name of a corporate entity, e.g., an association, institution, business firm, non-profit enterprise, government, government agency, religious body, local church and conference • Source: MARC 21 110 / UNIMARC 710 if 1st indicator = 0; or • MARC 21 710 / UNIMARC 711, 712 if 1st indicator = 0
3	personal	Use to express a search for a name of a person • Source: MARC 21 100 / UNIMARC 700; or • MARC 21 700 / UNIMARC 701, 702
4	institution	Use to express a search for either a conference or a corporate name. • Source: MARC 21 110/111/710/711 / UNIMARC 710/711/712

Examples:

To search for a composition composed by Victor Davies
    (1) Access point [Cross Domain Set] = (3) Name
    (8) Comparison [Utility Set] = (3) Equals
    (9) Format/Structure = (3) name, comma-delimited, entry element first
    (12) Functional Qualifier = (cmp) composer
    (2) Semantic Qualifier = (3) personal
    Term = Davies, Victor

RESOURCE IDENTIFIER (8)

An unambiguous reference to the resource within a given context. [Cross-Domain set]

NOTE re Treatment of Hyphens used in Resource Identifier terms: Many types of resource numbers (e.g., ISBN, ISSN, LCCN) include hyphens and other punctuation for display purposes. This punctuation is not normally stored in the access points in bibliographic databases (e.g., ISSN 10415653 vs. 1041-5653]. However, published materials that include such reference indicators may display these terms with punctuations and some searchers will include this punctuation when transcribing the numbers into search queries. Servers should be able to handle the strings, with and without such punctuation, as valid search terms.

Content Authorities for Resource Identifiers

The Content Authority for a Resource Identifier term refers to the source of the resource identifier, for example, using the internationally recognized standard identifier for a specific library or related organization.

NOTE: ISO/DIS 15511, *Information and documentation – International Standard Identifier for Libraries and Related Organisations (ISIL)* is a possible Content Authority for this attribute. However, at the time of the release of version 1.0, this standard was in ballot and not yet implemented.

1	BL	British Library
2	BNF	Bibliothèque nationale de France
3	DDB	Die Deutsche Bibliothek
4	ISO3166-1	Use the country codes from ISO 3166-1 to identify, when appropriate, the country to which a national numbering scheme can be applied, such as the national bibliography number or a legal deposit number.
5	LC	Library of Congress
6	NAL	US National Agricultural Library
7	NLC	National Library of Canada
8	NLM	US National Library of Medicine

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9	OCLC	
10	RLG	Research Libraries Group
11	USGPO	US Government Publication Office
12	ZDB	Zeitschriftendatenbank

Semantic Qualifiers for Resource Identifiers

A Semantic Qualifier for a Resource Identifier access point identifies which type of Resource Identifier is associated with the bibliographic item or resource, whether the Resource Identifier term is, for example, a standard number, such as an ISBN or ISSN, a document number or a national bibliography number.

1	accounting number	
2	acquisition number	
3	BICI	Book Item and Component Identifier [NISO. Draft Standard for Trial Use]
4	call number	Alpha-numeric string that indicates the permanent relative physical location assigned to a bibliographic item
5	CODEN	CODEN designation, a 6-character unique identifier for scientific and technical periodical titles, assigned by the International CODEN Section of Chemical Abstracts Service • Source: MARC 21 030 / UNIMARC 040
6	document number	Identifier assigned by a server that uniquely identifies a document on that server. May or may not be persistent. • Example: URL
7	DOI	Digital Object Identifier. Unique identifier used to link users of materials to the rights holders or their agents and facilitate automated digital commerce. [ANSI/NISO Z39.84]
8	ISBN	International Standard Book Number [ISO 2108] • Source: MARC 21 020 $a / UNIMARC 010 $a
9	ISRC	International Standard Recording Code [ISO 3901] • Source: MARC 21 024 $a if 1st indicator = 0 / UNIMARC 016 $a
10	ISRN	International Standard Technical Report Number [ISO 10444] • Source: UNIMARC 015 $a

11	ISSN	International Standard Serial Number [ISO 3297] • Source: MARC 21 022 $a / UNIMARC 011 $a
12	item number (GPO)	• Source: MARC 21 074 $a / UNIMARC 022 $b
13	legal deposit number	Number assigned to an item when the item is deposited in a library in accordance to national requirements for legal deposit. • Source: UNIMARC 021 $b (country code in $a)
14	national bibliography number	Number assigned to a bibliographic record by a national bibliographic agency • Source: MARC 21 015 $a / UNIMARC 020 $b (country code in $a)
15	report number	Number (not a Standard Technical Report Number) assigned to a technical report • Source: MARC 21 088 / UNIMARC 035 $a
16	SICI	Serial Item and Contribution Identifier: [NISO Z38.56] • Source: MARC 21 024 $a if 1st indicator = 4 MARC 21 / UNIMARC 014 if $2 = sici
17	standard number	Standard number such as ISBN, ISSN, music publishers numbers, CODENs, etc., that are indexed together in many online public-access catalogues
18	stock number	Number used to order an item or its reproduction, such as a distributor, publisher, or vendor number. • Source: MARC 21 037$a / UNIMARC 345 $b
19	system control number	A control number of a system other than the "Local Control number of the Record" • Source: MARC 21 035 $a / UNIMARC 035 $a • Note: Use the Utility Set Access Point Attribute 4 "Local Control Number of Record" to search for the resource identifiers that are locally assigned by the holder of the item.
20	thematic number	Numeric designation for a part/section of a work such as the serial, opus or thematic index number • Source: MARC 21 tags: 130 $n / UNIMARC 500 $h if 1st indicator = 1, 2nd indicator = 1 • MARC 21 240 $n / UNIMARC 500

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		$h if 1st indicator = 1, 2nd indicator = 0 • MARC 21 243 $n / UNIMARC 501 $s • MARC 21 630 $n / UNIMARC 605 $h • MARC 21 700 $n • MARC 21 730 $n / UNIMARC 605 $h
21	volume	

Examples:

To search for an item with the OCLC number ocm29712434
    a) in the OCLC database
        (1) Access point [Utility Set] = (4) Local Control Number of Record
        (8) Comparison [Utility Set] = (3) Equals
        Term = ocm29712434

    b) in the RLG database
        (1) Access point [Cross Domain Set] = (8) Resource Identifier
        (8) Comparison [Utility Set] = (3) Equals
        (4) Content Authority = (9) OCLC
        (2) Semantic Qualifier = (19) system control number
        Term = ocm29712434

To search for an item with the ISBN 0-7167-8180-8
    (1) Access point [Cross Domain Set] = (8) Resource Identifier
    (8) Comparison [Utility Set] = (3) Equals
    (2) Semantic Qualifier = (8) ISBN
    Term = 0-7167-8180-8

To search for an item with the ISBN 0060173831
    (1) Access point [Cross Domain Set] = (8) Resource Identifier
    (8) Comparison [Utility Set] = (3) Equals
    (2) Semantic Qualifier = (8) ISBN
    Term = 0060173831

To search for an item with ISSN 1197-1495
    (1) Access point [Cross Domain Set] = (8) Resource Identifier
    (8) Comparison [Utility Set] = (3) Equals
    (2) Semantic Qualifier = (11) ISSN
    Term = 1197-1495

RESOURCE TYPE (6)

Code, text. The nature or genre of the content of the resource. [Cross-Domain set]

The nature or genre of the contents or part of the contents of a bibliographic item or resource. [ISO/DIS 8459-5].

Semantic Qualifier for Resource Type

A Semantic Qualifier for a Resource Type access point attribute identifies whether the term is a describes a bibliographic level, a nature of contents or a genre or form subject heading associated with the bibliographic item or resource,

1	bibliographic level	• Source: MARC 21 Leader cp 7 / UNIMARC Record Label cp 7
2	genre/form subject heading	• Source: MARC 21 655 $a / UNIMARC 608 $a
3	nature of contents	• Source: MARC 21 008 cp 24-27 / UNIMARC 110 $a/1, $a/4-6 / UNIMARC 105 $a/4-7

Examples:

To search for theses
    (1) Access point [Cross Domain Set] = (6) Resource Type
    (8) Comparison [Utility Set] = (3) Equals
    (2) Semantic Qualifier = (3) nature of contents
    Term = theses

SUBJECT (2)

Text. A word, phrase or number indicating the topic of a bibliographic item or resource.

Content Authorities for Topical Subjects

The Content Authority for a Subject term refers to the authoritative source of the term. This includes those values which are explicitly defined in MARC 21 as values for the second indicator in subject access filed (6XX), such as LCSH and MESH; and those values listed in the various sources of subject headings, index terms and classification such as ddc (*Dewey Decimal Classification*), bmsi (*British Museum subject index*), psychit (*Thesaurus of Psychological Index Terms*), or rswk (*Regeln für den Schlagworkkatalog*).

Values are assumed to be strings as specified in this table or from one of the following sources:

1. Values explicitly defined in MARC 21 as values for Second indicator in Subject Access Fields (6XX):

0	LCSH	*Library of Congress Subject Headings* • Source: MARC 21 650 $a if 2nd indicator = 0 / UNIMARC 606 $a if $2 = lc
1	LC Children's	*Library of Congress Subject Headings for Children's Literature* • Source: MARC 21 650 $a if 2nd indicator = 1 / UNIMARC 606 $a if $2 = lcch
2	MeSH	*Medical Subject Headings* (Bethesda, Md.: National Library of Medicine) • Source: MARC 21 650 $a if 2nd

		indicator = 2 / UNIMARC 606 $a if $2 = mesh
3	NAL	*National Agricultural Library subject authority file* • Source: MARC 21 650 $a if 2nd indicator = 3 / UNIMARC 606 $a if $2 = nal
5	CSH	*Canadian Subject Headings* (Ottawa, National Library of Canada) • Source: MARC 21 650 $a if 2nd indicator = 5 / UNIMARC 606 $a if $2 = cae
6	RVM	*Répertoire de vedettes-matière* (Québec: Bibliothèque de l'Université Laval) • Source: MARC 21 650 $a if 2nd indicator = 6 / UNIMARC 606 $a if $2 = caf

2. MARC Code List. Part II: Category Code Sources
  <http://lcweb.loc.gov/marc/relators/relacats.html>

  List includes codes such as agrissc (*AGRIS Subject Catagories*), and mesh (NLM's *Medical Subject Headings*)

3. MARC Code List. Part III: Classification Sources
  <http://lcweb.loc.gov/marc/relators/relaclas.html>

  List includes codes such as ddc (*Dewey Decimal Classification*), inspec (*INSPEC Classification*), rswk (*Regeln für den Schlagworkkatalog*)

4. MARC Code List. Part IV: Term, Name, Title Sources
  <http://lcweb.loc.gov/marc/relators/relasour.html>

  List includes codes such as agrovoc (*AGROVOC Multilingual Agricultural Thesaurus*), inspect (*INSPEC Thesaurus*), psychit (*Thesaurus of Psychological Index Terms*), rswk (*Regeln für den Schlagworkkatalog*) and sears (*Sears Subject Headings*)

5. UNIMARC Manual : Bibliographic Format. Appendix G: Subject Systems Codes
  http://www.ifla.org/VI/3/p1996-1/appx-g.htm

  Includes a Thesaurus List with codes such as bmsi (*British Museum subject index*) fei (*Fingerprints=Empreintes = Impronte*) and a Classification Scheme List with codes such as rugasnti (*State Rubricator for Scientific and Technical Information*) and sab (*Klassifikationssystem för svenska bibliotek*)

NOTE: The use of one of these lists does not imply that the codes are expected to exist in the database or data being searched. How a server performs the search implied by the function code is specific to the database that the server is mapping. For instance, bibliographic databases based on MARC records can be expected to execute the search for subject type code "lcsh" by looking for the term in the MARC fields 600-651.

However, the server should not perform a search other than the one requested. For instance, if an attribute list specified a Content Authority "inspect" for a subject, a server should not return search results with instances of that subject identified as "lcsh". If the database does not support searching of the database by "inspect", then the search should be failed.

10	BDI	*Bibliotek-Dokumentation-Information* (controlled subject vocabulary for library and information science used and maintained by the library schools in the five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden.)
11	Bliss	*Bliss Bibliographic Classification*
12	CAS	*Chemical Abstract Registry*
13	COMPASS	Computer Aided Subject System (used by the British Library, 1991-1996) • Source: UNIMARC 606 $a if $2 = COMPASS
14	EPT	*European Pedagogical Thesaurus*
15	GA	*MARC Code List for Geographic Areas*
16	government publication number	Classification number assigned to a government document by a government agency at any level (e.g., provincial, state, national, international) • Source: MARC 21 086 $a / UNIMARC 686 $a and $2 = GPN
17	GOO	*Gemeenschappelijke Onderwerpsontsluiting* (Den Haag: Koninklijke Bibliotheek)
18	LCC	*Library of Congress Classification*
19	MOS	*Mathematical Subject Classification* (compiled in the Editorial Offices of Mathematical Reviews and Zentralblatt für Mathematik) • Source: UNIMARC 686 $a if $d = mos
20	Precis	PREserved Context Index System (used by the British Library 1971-1990) • Source: UNIMARC 670 $b
21	Rameau	*Répertoire d'autorité-matière encyclopédique et alphabétique unifié* (Paris : Bibliothèque nationale) • Source: UNIMARC 606 $a if $2 = rameau
22	SuDocs	United States Superintendent of Documents Classification System • Source: MARC 21 086 if 1st indicator = 0
23	UDC	*Universal Decimal Classification* • Source: MARC 21 080 $a /

		UNIMARC 675 $a
24	USDDC	*U.S. Dept. of Defense Classification,* • Source: MARC 21 052 if 1st indicator =0 $a / UNIMARC 686 $a if $d = USDC
25	Uncontrolled	• Source: MARC 21 653 / UNIMARC 610

Content Authorities for Names used as Subjects

The Content Authority for a Name term used as a Subject refers to the authoritative source of the term, for example, whether the term is listed in the British Library Name Authority File or Personennamendatei, the German authority file for personal names.

1	British Library Name Authority File	
2	Canadiana Authorities	
3	GKD	*Gemeinsam Köperschaftsdatei*, German authority file for corporate names
4	NACO Name Authority File	
5	OCLC	
6	PND	*Personennamendatei*, German authority file for personal names
7	RLG	

Functional Qualifiers for Subjects

A Functional Qualifier for a Subject describes the role played by the topic associated with the bibliographic item or resource.

1	chronological	subject term indicating the time period covered by the material being described • Source: MARC 21 600 $y / UNIMARC 600 $z • MARC 21 610 $y / UNIMARC 601 $z 1st indicator = 0 • MARC 21 611 $y / UNIMARC 601 $z 1st indicator = 1 • MARC 21 630 $y / UNIMARC 605 $z • MARC 21 650 $y / UNIMARC 606 $z • MARC 21 651 $y / UNIMARC 607 $z • MARC 21 654 $y

		• MARC 21 655 $y / UNIMARC 608 $z • MARC 21 656 $y • MARC 21 657 $y
2	classification	A structured data string applied to a bibliographic item or resource that indicates the subject of the item and sequences it with related items. [ISO/DIS 8459-5]
3	corporate	subject term in which the entry element is the name of a corporate entity • Source: MARC 21 610 / UNIMARC 601 1st indicator = 0 • UNIMARC 604 with embedded field 710/711/712 1st indicator = 0
4	form	index term indicating the genre, form and/or physical characteristics of the materials being described • Source: MARC 21 655 / UNIMARC 608
5	geographic	subject term in which the entry element is the name of a geographic entity • Source: MARC 21 651 / UNIMARC 607
6	meeting	subject term in which the entry element is the name of a meeting • Source: MARC 21 611 / UNIMARC 601 1st indicator = 1 • UNIMARC 604 with embedded field 710/711/712 1st indicator = 1
7	personal	subject term in which the entry element is the name of a person • Source: MARC 21 600 / UNIMARC 600
8	title	subject term in which the entry element is a title • Source: MARC 21 630 / UNIMARC 605
9	treatment	Code, text. A statement (code or full text) describing subject aspect of the content • Submitted by Deutsche Bibliothek
10	topical	subject term in which the entry element is a word or phrase representing a topic • Source: MARC 21 650 / UNIMARC 606

Semantic Qualifiers for Subjects

A Semantic Qualifier for a Subject identifies the type of subject term associated with the bibliographic item or resource, whether the subject term is, for example, a complete subject term or a subdivision.

1	complete subject term	complete string of a subject term • Example: dogs--nutrition (i.e., MARC 21 650 / UNIMARC 606 • Source: MARC 21 6XX / UNIMARC 600 - 610
2	main subject term	entry element of a subject or index term • Example: dogs (i.e., MARC 21 650 $a) • Source: MARC 21 6XX $a / UNIMARC 600-610 $a
3	subdivision	term subordinate to the main subject term, providing additional designations (e.g., chronological, geographic, national, topical) that more fully describe a subject • Example: nutrition (i.e., MARC 21 650 $x) • Source: MARC 21 6XX $x, $y, $z / UNIMARC 600-607 $x, $z, $y

Examples:

To search for items on dog nutrition using *Répertoire de Vedettes Matière* (RVM)
  (1) Access point [Cross Domain Set] = (2) Subject
  (8) Comparison [Utility Set] = (3) Equals
  (4) Content Authority = (6) RVM
  (9) Format/Structure [Utility Set] = (1) Adjacent words
  (12) Functional Qualifier = (10) topical
  (2) Semantic Qualifier = (1) complete subject term
  Term = chiens-alimentation

TITLE (1)

Text. A name given to a bibliographic item or resource usually by the creator or publisher.

Semantic Qualifiers for Titles

A Semantic Qualifier for a Title identifies the type of title associated with the bibliographic item or resource, whether the title term is, for example, a main title or a series title.

1	abbreviated title	title composed of abbreviations of nouns and adjectives of the key title, determined by a national centre of ISDS • Source: MARC 21 210 / UNIMARC 531
2	added title page title	title in another language found on a title page that is not used as the chief source of the bibliographic description • Source: MARC 21 246 2nd indicator = 5 / UNIMARC 513
3	caption title	title given at the beginning of the first page of text

		• Source: MARC 21 246 2nd indicator = 6 / UNIMARC 514
4	cited journal	title of a journal cited in a document
5	collective title	title proper that is an inclusive title for an item containing several works [AACR2 rev] • Source: MARC 21 243 / UNIMARC 501
6	component part title	title that is a subunit or part of a larger bibliographic item • Source: MARC 21 772 $t / UNIMARC 422 $t
7	cover title	title printed on the cover of an item as issued [AACR2 rev.] • Source: MARC 21 246 2nd indicator = 4 / UNIMARC 512
8	expanded title	title expanded or augmented with descriptive words by a cataloguer to provide additional indexing and searching capabilities • Source: UNIMARC 532
9	former title	previous title of a bibliographic entity • Source: MARC 21 780 $t / UNIMARC 430-437 $t
10	host item	title of the host item when the bibliographic item being described is a component unit • Source: MARC 21 773 $t / UNIMARC 461 $t if Record Label cp 8 = 2
11	key title	unique title for a serial, assigned by an ISDS national agency in conjunction with the assignment of an ISSN • Source: MARC 21 222 / UNIMARC 530
12	later title	succeeding title of a bibliographic entity • Source: MARC 21 785 $t / UNIMARC 440-448 $t
13	main title	• Source: MARC 21 245 $a, $n, $p / UNIMARC 200 $a, $h, $i
14	original language title	title of the work in the original language when the bibliographic item being described is a translation • Source: MARC 21 765 $t / UNIMARC 454 $t
15	other variant title	variation of the title that appears on the piece, which is not more appropriately indicated by a specific type of title. • Source: MARC 21 246 2nd indicator = 3 / UNIMARC 517 $a
16	other related work	title of a related periodical when the relationship does not fit those defined

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		otherwise • Source: MARC 21 787 $t or $a/ UNIMARC 488 $t or $a
17	parallel title	title proper in another language and/or script, recorded in the title and statement of responsibility area [AACR] • Source: MARC 21 246 2nd indicator = 1 / UNIMARC 510 / UNIMARC 200 $d
18	running title	title, or abbreviated title, that is repeated at the head or foot of each page or leaf of a publication • Source: MARC 21 246 2nd indicator = 7 / UNIMARC 515
19	series title	name given to a number of separate publications related to one another by the fact that each bears a collective title applying to the group or subgroup as a whole, as well as its own title. [ISO/DIS 8459-5] • Source: MARC 21 440 / UNIMARC 225 • MARC 400-411 $t
20	special edition title	special title that appears in addition to the regular title on an individual issue of an item and by which the issue may be known • Source: MARC 21 246 if 2nd indicator = 2 / UNIMARC 517
21	spine title	title appearing on the spine of an item • Source: MARC 21 246 if 2nd indicator = 8 / UNIMARC 516
22	subseries title	title of a series that always appears in conjunction with another, usually more comprehensive, series of which it forms a section • Source: MARC 21 762 $t / UNIMARC 411 $t
23	subtitle	title information that appears subordinate to the title proper on an item • Source: MARC 21 245 $b / UNIMARC 200 $e
24	supplemental title	title of a supplement associated with a supplement or special issue • Source: MARC 21 770 $t / UNIMARC 421 $t
25	title indexed by	name of the index in which the bibliographic unit has been indexed • Source: MARC 21 510 $a / UNIMARC 321 $a
26	translated title	translation of a title proper, supplied by a cataloguer when a translated title does not

		appear as a parallel title • Source: MARC 21 242 / UNIMARC 541
27	uniform title	title constructed to bring together all catalogue entries for a work when various manifestations (e.g., editions, translations) of it appear under various titles • Source: MARC 21 240 / UNIMARC 500 $h if 1st indicator = 1 and 2nd indicator = 0 or • MARC 21 243 / UNIMARC 501

Examples:

To search for the serial publication with the key title *Canine nutr. health*
    (1) Access point [Cross Domain Set] = (1) Title
    (8) Comparison [Utility Set] = (3) Equals
    (9) Format/Structure [Utility Set] = (1) Adjacent words
    (2) Semantic Qualifier = (11) key title
    Term = Canine nutr. health

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UTILITY SET ATTRIBUTES

USE OF UTILITY SET ATTRIBUTES

Following are the Utility Set attribute types and their values considered most suitable for use with the Bib-2 Attribute Set. This list, however, does not preclude the use of other Utility Attributes; other values and attributes types from the Utility Set may be used if required.

The Bib-2 Attribute Set defines additional values for the Utility Set attribute types, Access Point (1), Semantic Qualifier (2), Content Authority (4), Format/Structure (9), and Functional Qualifier (12).

ACCESS POINT (1)

1	Record date
2	Record agent
3	Language of record
4	Local control number of record
6	Record syntax
11	All access points
12	Anywhere in record
13	Server choice

SEMANTIC QUALIFIER (2)

1	Null
3	Institution
4	Process

CONTENT AUTHORITY (4)

1	Null

EXPANSION/INTERPRETATION (5)

1	Left truncation on word boundary

2	Right truncation on word boundary
3	Left truncation on character boundary
4	Right truncation on character boundary
6	Masking
13	No stop words
16	Right truncate each word
17	Left truncate each word
18	Left anchored

COMPARISON (8)

3	Equal
4	Less than
5	Less than or equal
6	Greater than
7	Greater than or equal
8	Not equal

FORMAT/STRUCTURE (9)

1	Adjacent words
2	All these words
3	Any of these words

FUNCTIONAL QUALIFIER (12)

1	Null
2	Creation
3	Modification
4	Review

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Examples:

To search for bibliographic records created by the University of British Columbia:
    (1) Access point [Utility Set] = (2) Record Agent
    (8) Comparison [Utility Set] = (3) Equals
    (12) Functional Qualifier [Utility Set] = (2) Creation
    (2) Semantic Qualifier [Utility Set] = (3) Institution
    Term = BVAU

REFERENCES

Z39.50 ATTRIBUTE ARCHITECTURE DOCUMENTS

Z39.50 Attribute Architecture, Version 1.1, July 9, 1999.
  Retrieved 2002 September 09, from
    <http://lcweb.loc.gov/z3950/agency/attrarch/arch.html>

Z39.50 Utility Attribute Set, Updated September 2002 [Version 1, November 1999].
  Retrieved 2002 September 09, from
    <http://lcweb.loc.gov/z3950/agency/attrarch/util.html>

The Z39.50 Cross-Domain Attribute Set, Version 1.4, 1999/08/04.
  Retrieved 2002 September 09, from
    <http://www.oclc.org/~levan/docs/crossdomainattributeset.html>

Bib-1 Attribute Set.
  Retrieved 2002 September 09, from <http://lcweb.loc.gov/z3950/agency/defns/bib1.html>

Attribute Set Bib-1 (Z39.50-1995): Semantics.
  Retrieved 2002 September 09, from <ftp://ftp.loc.gov/pub/z3950/defs/bib1.txt>

REFERENCED STANDARDS

ANSI/NISO Z39.53-1994, *Codes for the Representation of Languages for Information Interchange.*
  Retrieved 2002 September 09, from <http://www.niso.org/standards/resources/Z39-53.pdf>

ANSI/NISO Z39.56–1996, *Serial Item and Contribution Identifier (SICI).* Version 2.
  Retrieved 2002 September 09, from <http://www.niso.org/standards/resources/Z39-56.pdf>

ANSI/NISO Z39.84-2000, *Syntax for the Digital Object Identifier.).*
  Retrieved 2002 September 09, from <http://www.niso.org/standards/resources/Z39-84-2000.pdf>

Anglo-American Cataloguing rules. 2nd ed., 1998 revision. Ottawa: Canadian Library Association, 1988.

Geographic Cutters. Class G, Geographic Cutters. Washington, D.C.: Library of Congress

IANA. *MIME Media Types.*
  Retrieved 2002 September 09, from <http://www.iana.org/assignments/media-types/index.html>

ISO/FDIS 639-1, *Codes for the representation of names of languages-- Part 1: Alpha-2 code.* Genève: ISO/IEC, [2001]

ISO 639-2, *Codes for the representation of names of languages – Part 2: Alpha-3 code.* Genève: ISO/IEC, 1998

ISO 2709: 1996, *Information and documentation – Format for information exchange.* Genève: ISO/IEC, 1996.

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions – Part 1: Country codes.* Genève: ISO/IEC, 1997.

ISO/FDIS 3901, *Information and documentation – International Standard Recording Code (ISRC).* Genève: ISO/IEC, [2001].

ISO/FDIS 8459-5, *Information and documentation – Bibliographic data element directory – Part 5: Data elements for the exchange of cataloguing and metadata.* Genève: ISO/IEC, [2001]

ISO 8601:2000, *Data elements and interchange formats – Information interchange – Representation of dates and times.* Genève: ISO/IEC, 2000

ISO 10444:1994, *Information and documentation – International standard technical report number (ISRN).* Genève: ISO/IEC, 1994

ISO 10957:1993, *Information and documentation – International standard music number (ISMN).* Genève: ISO/IEC, 1993

ISO/DIS 15511, *Information and documentation – International Standard Identifier for Libraries and Related Organisations (ISIL).* Genève: ISO/IEC, [2001]

Library of Congress Classification. Class G. Washington, D.C.: Library of Congress.

MARC 21 *Concise Format for Bibliographic Data.* Washington, D.C.: Library of Congress. Network Development and MARC Standards Office.
Retrieved 2002 September 09, from
<http://lcweb.loc.gov/marc/bibliographic/ecbdhome.html>

MARC Code List for Countries. Web version, September1, 2000. Washington, D.C.: Library of Congress. Network Development and MARC Standards Office.
Retrieved 2002 September 09, from <http://lcweb.loc.gov/marc/countries/>

MARC Code List for Languages. Web version of the 2000 edition. Washington, D.C.: Library of Congress. Network Development and MARC Standards Office.
Retrieved 2002 September 09, from <http://lcweb.loc.gov/marc/languages/>

MARC Code List for Organizations. Web version of the 2000 edition. Washington, D.C.: Library of Congress. Network Development and MARC Standards Office.
Retrieved 2002 September 09, from <http://lcweb.loc.gov/marc/organizations/>

MARC Code List for Relators, Sources, Description Convention Codes. Web version. Washington, D.C.: Library of Congress. Network Development and MARC Standards Office.
Retrieved 2002 September 09, from <http://www.loc.gov/marc/relators/relahome.html>

MARC Code List. Part 1: Relator Codes.
Retrieved 2002 September 09, from <http://www.loc.gov/marc/relators/relators.html>

MARC Code List. Part II: Category Code Sources.
Retrieved 2002 September 09, from <http://www.loc.gov/marc/relators/relacats.html>

MARC Code List. Part III: Classification Sources.
Retrieved 2002 September 09, from <http://www.loc.gov/marc/relators/relaclas.html>

MARC Code List: Part IV: Term, Name, Title Sources.
Retrieved 2002 September 09, from <http://www.loc.gov/marc/relators/relasour.html>

NISO. *Book Item and Component Identifier*: Draft Standard for Trial Use.
Retrieved 2002 September 09, from <http://www.niso.org/pdfs/BICI-DS.pdf>

UNIMARC Manual: Bibliographic Format. IFLA Universal Bibliographic Control and International
MARC Core Programme (UBCIM) "represents the state of the format as at 1 March 2000."
Retrieved 2002 September 09, from <http://www.ifla.org/VI/3/p1996-1/sec-uni.htm>