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Information and documentation -- China Marc Xchange

信息与文献 CNMARC的XML表示

(English Translation)

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafted law to amend the use of ISO 25577:2013 "information and documentation MarcXchange." this standard and ISO 25577:2013 technical differences and the reasons are as follows.

--- On normative references, this standard made a technical difference with the adjustment to adapt to China's technical conditions, adjust the situation Concentration reflected in the second chapter "Normative references", the specific adjustments are as follows.

- Equivalent to the international standard GB/T 2901 instead of ISO 2709;
- Replace GB/T 1988 with ISO/IEC 646 equivalent to international standards;
- Replace ISO/IEC 10646 with GB/T 13000 equivalent to international standards;
- New national standard GB/T 33286-2016 "China Machine Readable Format".

--- The standard in Chapter 3 "Terms and Definitions" added the term "Chinese machine readable directory", that CNMARC.

--- This standard replaces "MARCXML" in ISO 25577:2013 with "CNMARCXML".

--- ISO 25577:2013 4.1 "Overview" provides that "sub-field identification can be used ISO 10646 8-bit coded character set BMP row00 (Basic Latin and Latin-1 Supplementary Character Set) ", this standard was modified according to CNMARC provisions of China's machine readable catalog format "Sub-field code and only one, can use uppercase and lowercase letters or numbers."

--- This standard in order to adapt to the relevant provisions of CNMARC format, the ISO 25577:2013 4.2 "XML Framework" the relevant provisions have been adjusted, the specific adjustments are as follows.

- Change the title of 4.2 to "General Structure of CNMARCXML Schema".

- The content "format (record format, optional)" in 4.2 "XML Framework Structure" of ISO 25577:2013 b) MARC recording of the implementation of the format (such as MARC21, UNIMARC, danMARC2, lbermarc) "to" format (Format, optional), identifies the execution format of MARC record, the specified value is 'CNMARC' National machine readable directory format.

- Correspond with the content "controlfield" in 4.2 "XML Framework Structure" of ISO 25577:2013 d) ISO 2709 recorded control number field (001) and reference fields (002 ~ 009,00A ~ 00Z) "to" correspond CNMARC recorded control number field (001) and reference fields (002 ~ 009,00a ~ 00z, 00A ~ 00Z) ", and add the limit description "it applies only to CNMARC fields without indicators and subfields." - The "datafield" data field in 4.2 "XML Frame Structure" e) of ISO 25577:2013 consists of "001 to 999 and 00A ~ ZZZ" is changed to "010 ~ 999,01a ~ zzz and 01A ~ ZZZ "; the indicator character is changed from "ind1 to ind9 Indicator 1 to indicator 9, optional) "to" ind1 and ind2 (indicator 1 and indicator 2, essential), "and will correspond

Figure 2 "CNMRACXML general structure" in the "datafield" attribute is modified to "id, ind1, ind2, tag".

--- This standard deleted the ISO 25577:2013 Appendix C (informative) "MarcXchange structure of the application."

--- This standard ISO 25577:2013 appendix will be modified to meet the sample "CNMARC" format information.

Please note that some of this document may be patentable. The issuing agencies of this document do not bear the responsibility of identifying these patents.

This standard by the National Information and Documentation Standardization Technical Committee (SAC/TC4) and focal point.

This standard was drafted unit. China National Library, Tsinghua University Library.

Introduction

The China Machine Readable Directory Format (CNMARC) is a uniform standard used by Chinese library and information society to record metadata of articles and documents. It provides A complete, detailed and rigorous data specification. The destination data is the largest information resource available to the user by the library, however, due to GB/T 2901 format CNMARC metadata specificity, the user must rely on a dedicated client and in a

particular software system the search tools provided provide for the retrieval of information.

XML (ExtensibleMarkupLanguage) is promoted by W3C (WorldWideWebConsortium, World Wide Web Consortium) A new standard adopted, it is an optimized subset of SGML. XML is a meta-markup language, has good scalability, use You can expand as needed to define new tags. Converting CNMARC records from GB/T 2901 format to XML format allows book the data becomes machine-readable XML structured data that enables the integration of the head data with the non-head data on the Internet so that the existing , A large amount of CNMARC data can be conveniently applied in traditional libraries and digital libraries to provide Web-oriented validation information.

As early as 2005, ISO TC46/SC4 (Information and Documentation Standardization Technical Committee/Interoperability Subcommittee) issued a standard Draft "ISO/DIS 25577. Information and documentation - Marc Xchange" and introduced a program called "MarcX-change "MARCXML model. This model is a universal, able to meet all worldwide MARC follow ISO 2709 Generic XML Schema, which is available between ISO 2709 MARC records and XML encoded MARC records Lossless interoperability also ensures compatibility of MARC data with other metadata such as DC metadata. December 1, 2008 ISO TC46/SC4 officially released "ISO 25577.Informationanddocumentation-MarcXchange" first edition. year 2013 the second edition was officially released on December 15, with the second major addition of nested data elements.

This standard according to the specific provisions of CNMARC, ISO 25577:2013 on the basis of the changes and restrictions, and CNMARC the XML schema is named "CNMARXML". Using GB/T 2901 format consistent with the definition and terminology described to give a suitable Common XML schema for CNMARC records that use the syntax of GB/T 2901 without changing their structure.

At the core of the CNMARXML architecture is a simple XML encoding scheme that includes CNMARC data for use with MARC Record exchange, or with other metadata conversion and format verification, but still retain MARC semantics. In the XML structure , Will be handled as follows GB/T 2901 various basic elements.

- Record header marked with a text string;
- XML structure no directory area, when converted from CNMARXML GB/T 2901 format, you need to re-set the directory Sub-district
- Record identification number field and control field element, the field identifier as an attribute;
- Data field elements, field identifiers and indicators, respectively, as its attributes;
- Sub-field sub-elements that its sub-field code as its attributes.

Information and Documentation XML Representation of CNMARC

1 Scope

This standard specifies the XML format of CNMARC records as a supplement to the GB/T 2901 format in a networked environment.

This standard clarifies the functional requirements of a generic, catalog-based XML exchange format and other types of metadata, but does not define a single Length or content of records, nor any definition of field descriptions, indicators, identifiers, and functional descriptions of the execution format.

This standard applies to the use of CNMARC format for the preparation of various types of records, including the head records, of norms, classification records and Museum Tibetan records.

This standard has the following application prospects.

- XML environment, a complete CNMARC record that;
- Using XML syntax to describe the original resources;
- Can be used as METS (Metadata Encoding and Transmission Standards) to describe the metadata extension encoding scheme;
- XML exchange format for CNMARC recording;
- CNMARC records passed through the SRU (URL query/retrieval) and other agreements in Web services;
- For publisher to transfer data;
- As a variety of data conversion or processing of intermediate formats, such as conversion, publishing, editing, calibration;
- XML format metadata can be encapsulated with the object data.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 1988 Information Technology Information exchange with seven coded character sets (GB/T 1988-1998, ISO/IEC 646:1991, IDT) GB/T 2901 Information and Documentation Information Exchange Format (GB/T 2901-2012, ISO 2709:2008, IDT) GB/T 13000 Information technology - General Multi-octet Encoding Character Set (UCS) (GB/T 13000-2010, ISO/IEC 10646.

2003, IDT)