SLOVENSKI STANDARD
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Informatika in dokumentacija – Seznam elementov bibliografskih podatkov – 4. del: Aplikacije za izposojo

Information and documentation -- Bibliographic data element directory -- Part 4: Circulation applications

Information et documentation -- Répertoire des éléments de données bibliographiques -- Partie 4: Applications à la circulation

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INTERNATIONAL STANDARD

**ISO
8459-4**

Information and documentation — Bibliographic data element directory —

Part 4:
Circulation applications

Information et documentation — Répertoire des éléments de données bibliographiques —

Partie 4: Applications à la circulation

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 8459-4 was prepared by Technical Committee ISO/TC 46, *Information and documentation*, Subcommittee SC 4, *Computer applications in information and documentation*.

ISO 8459 consists of the following parts, under the general title *Information and documentation — Bibliographic data element directory*:

— *Part 1: Interloan applications*

— *Part 2: Acquisitions applications*

— *Part 3: Information retrieval applications*

— *Part 4: Circulation applications*

Annex A forms an integral part of this part of ISO 8459. Annexes B and C are for information only.

Introduction

Data are interchanged for the purpose of starting or supporting a process. In order to transmit information required to support a process, the various elements of data in the interchanged messages must be fully understandable to the processes concerned. This part of ISO 8459 describes, in the form of a directory, data elements used to support circulation processes.

The data elements that may occur in a circulation transaction are presented in four ways:

a) A data element directory (see clause 4) with annexes containing code values and description for messages (see A.1) and date/time qualifier (see A.2).

b) An index (see clause 5) consisting of names, keywords and synonyms for data elements and data element values including names assigned to messages.

c) A structured order of data elements (see clause 6) which relates similar data elements in a hierarchical fashion.

d) A matrix (see clause 7) showing the data elements pertaining to specific circulation messages.

This part of ISO 8459 is the fourth part in a series which will, when complete, comprise a comprehensive data element directory for bibliographic use. This part of ISO 8459 is primarily intended for new circulation systems, for the exchange of circulation messages between different systems and for the exchange of data between client and server in the client/server model.

Information and documentation — Bibliographic data element directory —

Part 4:
Circulation applications

1 Scope

This part of ISO 8459 specifies and describes data elements required in the interchange of data between circulation systems (i.e. terminal to computer or computer to computer). It also identifies messages and their data elements which are used in circulation systems.

It is intended to support both batch and interactive circulation transactions.

Annex B provides examples of how this part of ISO 8459 may be used.

The structuring of the data elements into messages falls outside the scope of this part of ISO 8459.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 8459. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8459 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 639:1988, *Code for the representation of names of languages.*

ISO 2108:1992, *Information and documentation — International standard book numbering (ISBN).*

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

ISO 3297:1986, *Documentation — International standard serial numbering (ISSN).*

ISO 3901:1986, *Information and documentation — International Standard Recording Code (ISRC).*

ISO 4217:1995, *Codes for the representation of currencies and funds.*

ISO 5218:1977, *Information interchange — Representation of human sexes.*

ISO 7498-3:1989, *Information processing systems — Open Systems Interconnection — Basic Reference Model — Part 3: Naming and addressing.*

ISO 8601:1988, *Data elements and interchange formats — Information interchange — Representation of dates and times.*

ISO/IEC 10027:1990, *Information technology — Information Resource Dictionary System (IRDS) Framework.*

ISO 10957:1993, *Information and documentation — International standard music number (ISMN).*

3 Definitions

For the purposes of this part of ISO 8459, the following definitions apply.

3.1 character string: An arbitrary combination of letters, digits, punctuation marks or other symbols.

3.2 circulation: The work of controlling the loan and supply, user identification, status, return, recall, associated fees, bookings and reservations for items or copies thereof of the holdings of a library.

3.3 data element: A basic unit of identifiable and definable data. It has a data element name represented by a tag as identifier and one or more values for expressing (a) particular fact(s).

3.4 data element directory: A listing of data elements with specifications of representative data element values, as appropriate.

3.5 data element group: A set of related data elements.

3.6 data element group name: One or more words in a natural language identifying a data element group.

3.7 data element name: One or more words in a natural language identifying a data element.

3.8 data element value: A fact expressed by codes, digits or natural language corresponding to the data element description and representation.

3.9 message: A structured combination of data elements used in a circulation transaction.

3.10 record: A group of data usually treated as a unit.

3.11 representation: The way in which a particular data element value is expressed using one or more number(s), letter(s) or symbol(s).

3.12 tag: An identifier allocated for use in place of a data element name or data element group name. (In this part of ISO 8459, a group of three digits.)

3.13 transaction: The creation or modification of a message required to support the circulation of an item or to provide information concerning circulation status.

4 Directory

The directory names and defines data elements and data element groups used to support circulation transactions. The information pertaining to each data element or data element group is presented in four separate columns, labelled tag, name, description and representation. A "tag" is used to identify a data element as well as a data element group. "Name" contains data element names and data element group names. Data element group names are printed in bold letters to distinguish them from data element names. "Description" includes a definition for each data element or data element group followed by a list of corresponding tags for data elements that comprise the group. "Representation and Remarks" includes explanatory text about conventions and/or standards used to represent values applicable to a data element or a data element group as well as sample values, if applicable.

Tag	Name	Description	Representation and remarks
001	**Message identification**	Data used to identify a particular message. Group identifier for data elements 002-004, 010.	
002	Message name	A phrase or code identifying the function of a message.	See A.1.
003	Date	Year, month and day on which a transaction is performed, a message is sent or an event occurs.	Also used in conjunction with date/time qualifier (905). See A.2 for the various qualifiers that can be specified. See ISO 8601.
004	Time stamp	Time at which a transaction is sent, a message is sent or received or an event occurs.	Used by automated systems to indicate the precise hour, minute and second that a transaction occurred. Used in conjunction with A.2. See ISO 8601.
010	Transaction number	A code or number assigned to a document or message exchanged in a circulation-related transaction .	This number is assigned by the institution responsible for creating the specific type of document or message (e.g. loan, user identification, return, etc.).
040	**Session details**	Data that identifies various details about a specific session. Group identifier for data elements 050-078, 080-090, 092-097, 110, 231, 724-725, 848-849.	

Tag	Name	Description	Representation and remarks
050	**Transaction participant**	Data that identifies an institution which participates in a circulation transaction. Group identifier for data elements 060-078, 110.	
060	Participant's function	A word or code specifying the function or role performed by a party to a circulation session.	Possible values: 0 = circulation service provider 1 = database provider 2 = intermediary, gateway server 3 = circulation service user
076	Password	A code used by a system to authenticate the identity of an individual or automated process that has requested, or is using, a system function or service.	This code may be revised periodically to preserve its security. A password is typically supplied by the user at session initiation time but it could also be requested at any time during a session.
077	Password edition	A code or phrase used to identify the current and previous password(s).	This data element is used in conjunction with a user identification number (303), an institution identifier (115-116) and telenetwork user identifier (165).
078	Password type	A code or phrase used to indicate the specific services allowed to the password holder.	This data element is used by systems to support multiple levels of authentication. Possible values: 0 = system connection 1 = database connection 2 = read access 3 = write access 4 = delete privileges 5 = output instructions Security level (849) is used to control access to classified information. Related to access privileges (724), which provides various details associated with a type of privilege. 078 states the type of privilege.

Tag	Name	Description	Representation and remarks
080	Session identifier	A code or number used to identify a specific period of interaction between a user and an automated system.	A session typically covers all transactions between user and system from log-on to log-off. Sessions may be aborted prematurely by unusual systems or telecommunications events to produce an artificial log-off point. Sophisticated systems allow sessions to be suspended and resumed later or to change applications during a particular session.
081	Subsession identifier	A code or number used to identify a period of interaction with one specific service provided within a single session on an automated system.	
086	Reference identifier	A code or number assigned to an intersystem communication.	This number is used to monitor and verify that all system interactions have been transferred and processed in the proper sequence.
087	Continue flag	An instruction that processing should continue even though resource constraints (090 and 725) have been exceeded.	Possible values: 0 = continue 1 = stop
088	Suspend flag	An indication whether processing has been suspended whenever resource constraints have been exceeded (090, 092 and 725).	Possible values: 0 = processing not suspended 1 = processing suspended
090	Cost constraint	A predefined monetary value, which, if exceeded, will result in a specific system action.	Cost constraints are frequently used to limit the system resources that may be consumed by any one user over a given period of time.
092	Session length constraint	A predefined time limit, which, if exceeded, will result in a predefined system action.	A system will typically terminate a session after a set amount of time of system usage or inactivity.

Tag	Name	Description	Representation and remarks
095	Resource usage type	A numeric value used to indicate the type of system resource that has been used within a session or given time period.	Systems typically maintain information on the following resources in order to support planning, monitoring and controlling of these resources. Possible values: 0 = CPU time 1 = connect type 4 = number of sessions 7 = packets transmitted 8 = memory 9 = terminal transactions 10 = number of disk accesses 11 = number of tapes Used in conjunction with amount of usage (097).
096	System performance	Data collected to inform management about system performance.	Typical system performance measures include: Possible values: 0 = start-up delay 1 = percentage of down time 2 = number of system malfunctions 3 = number of telecommunication interruptions 4 = average response time Used in conjunction with amount of usage (097).
097	Amount of usage	A figure that measures the values established under resource usage type (095) and system performance (096).	
110	**Institution identification**	A group of data elements or code intended to identify an institution participating in a session or circulation transaction. Group identifier for data elements 111-118 and 130-142, 160-166.	

Tag	Name	Description	Representation and remarks
111	**Name of institution**	A word, or phrase or initialism intended to identify an institution or corporation. Group identifier for data elements 112 to 114.	
112	Main unit of institution name	The base name of an institution.	
113	Subordinate unit of institution name	A part of a name of an institution that defines a subdivision or department or unit of the institution.	This data element may be repeated to define subordinates of subordinates.
114	Abbreviated name	Short form of an institution's name (111).	
115	Institution identifier code	A code used to identify the numbering system contained in the institution identifier.	
116	Institution identifier	Unique number or code used to identify an institution.	
117	Official seal of institution	A design, initial or other device serving to identify an institution in an official manner.	
118	Institution role	A code or phrase that defines the role of the institution in a particular circulation transaction.	Possible values: 0 = direct user 1 = associated with another user
130	**Address**	A code or phrase that gives the geographic location or place associated with an institution or user. Group identifier for data elements 131-142, 160-166.	This element may be used in conjunction with institution identification (110) or user identification (300). For telenetwork addresses see (160).

Tag	Name	Description	Representation and remarks
131	Address instruction	A word or code that indicates the type of message or mail that is sent to the address where there are multiple addresses associated with an institution or individual.	This data element is used in conjunction with address (130). Possible values: 0 = ship to 1 = bill to
132	Address type	A code, word or phrase that defines the nature of a particular address where there are multiple addresses associated with an institution or individual.	Possible values: 0 = Temporary address 1 = Permanent address 2 = Parent's address 3 = Business address 4 = Other
133	Delivery service	A code, word or phrase that indicates the mail service that will deliver to an address.	Possible values: 0 = National mail service 1 = Campus mail 2 = Internal courier 3 = Other
134	Current address flag	A code, word or phrase that indicates which address, of a series of addresses associated with an institution or individual, is valid.	Where all types of messages and mail are sent to only one address, this data element is used to indicate the current address from possible multiple addresses. Where different types of messages and mail are sent to different addresses, then the address instruction data element (131) is used instead of this element. Possible values: 0 = Address current 1 = Address not current 2 = Unknown
135	Post office box	A box number assigned by the postal authority.	
136	Location within building	A number and/or phrase used to identify a location within a building or building complex.	Used when a second sequence of numbering in addition to a street and number (data element 137) are needed to identify a particular location. Examples: Suite 42 Level 4

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Tag	Name	Description	Representation and remarks
137	Street and number	A number and/or phrase used to identify a location of a building within a city, rural or local area.	This data element can be used to include the names of buildings. It is used in conjunction with the data element location within building (136). The two data elements may be combined into one address line.
138	City	A word or phrase used to identify a city, including suburb or postal area.	
139	Locality	A word or phrase identifying a subentity within a country.	Includes county, parish, etc.
140	Region	A word or phrase identifying an area within a country.	Includes state, province, department and prefecture.
141	Country	A word or phrase used to identify a country.	For country codes consult ISO 3166-1.
142	Postal code	A code assigned by the postal authorities of a country that uniquely identifies an address or group of addresses.	
150	Telecommunications carrier	A code, word, phrase or initialism used to identify the telecommunications carrier facilities being used to access a remote system.	It may be necessary to identify more than one carrier. The name of the carrier may also imply the switching technology that is being used (i.e. packet-switched or circuit-switched).
160	**Telenetwork address**	Unique number or code used to identify a device within a communications network. Group identifier for data elements 161-166.	
161	Telephone number	Unique number assigned to a telephone line.	
162	Telefacsimile number	Telecommunications number used for sending and receiving telefacsimiles.	