

BS ISO 27730:2012



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Information and documentation — International standard collection identifier (ISCI)

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National foreword

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**Information and documentation —
International standard collection
identifier (ISCI)**

*Information et documentation — Identifiant international normalisé des
collections (ISCI)*



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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 27730 was prepared by Technical Committee ISO/TC 46, *Information and documentation*, Subcommittee SC 9, *Identification and description*.

Introduction

ISO/TC 46, *Information and documentation*, has developed standard identifiers for a wide variety of entities. However, a standard identifier for collections, fonds and (archival) series has not yet been built. In the past there was no need for such an identifier, but the situation has changed. There are now a large number of collections, fonds and series and a broad range of organizations hosting them. These collections, fonds and series can be physical or electronic, partly physical and partly electronic, or virtual; they can be available either online via the Internet or offline.

The need for identifying collections, fonds and series has emerged as libraries and other cultural institutions develop their collections in cooperation with other institutions, as well as developing and maintaining multi-institutional collections, so termed “collective collections”. Collections are analysed and compared, weeded, relocated, digitized in whole or in part and made available for searching and other services via their own interfaces and via machine-to-machine interfaces. Unique identification of collections, fonds and series enables collection parts in different locations to be linked at a “collection level” for maintenance and discovery. The searchable metadata associated with the collection identifier facilitates the discovery of collections and their strengths and availability, which are particularly useful for search engines and metasearch engines. The metadata are also useful for cultural institutions seeking partnerships, whether on a global, regional, national or international scale.

While it is possible to use local identifiers, this is not recommended in an environment where global exchange of this kind of metadata is anticipated. The aim of this International Standard is to establish a system which requires neither a registration authority nor large national/regional centres, even if tens or hundreds of thousands of collections, fonds and series are identified.

Information and documentation — International standard collection identifier (ISCI)

1 Scope

This International Standard establishes the specifications for the International Standard Collection Identifier (ISCI) as a unique international identification system for each collection, fonds and (archival) series, and part(s) of collections, fonds and series. This International Standard establishes the specifications for the structure of an identifier and promotes the use of the identifier with regard to identifying systems that already exist. It also gives a list of recommended metadata elements that describe a collection.

This International Standard does not specify the description of collections, fonds and series, nor the relationships between collections and sub-collections.

The ISCI is intended for use by organizations that manage collections of cultural materials. These include cultural heritage institutions such as libraries, museums and archives, as well as other types of organizations such as publishers operating in the supply chain of cultural materials.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 15511, *Information and documentation — International standard identifier for libraries and related organizations (ISIL)*¹⁾

ISO/IEC 10646, *Information technology — Universal Coded Character Set (UCS)*²⁾

Dublin Core Collections Application Profile, March 2007. Available online at <http://dublincore.org/groups/collections/collection-application-profile/>

NOTE The Dublin Core Collections Application Profile facilitates the description of collections, fonds and series in general by providing a core set of metadata elements for this purpose. These elements form the basis for the recommended metadata elements listed in this International Standard.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

collection

permanent or temporary aggregation of physical and/or digital resources accumulated on the basis of some common characteristic, e.g. by location, by type or form of the items, by source or ownership

NOTE 1 See also **fonds** (3.3).

1) The Registration Authority for ISO 15511 can be found at http://www.iso.org/iso/standards_development/maintenance_agencies.htm; at the time of publication, it was directly available online at <http://biblstandard.dk/isil/>.

2) Unicode 6.0 has the same character code repertoire as ISO/IEC 10646:2011 with the exception of the Indian rupee sign. The Unicode standard, however, imposes additional constraints on implementations to ensure that they treat characters uniformly across platforms and applications. For more on the relationship of ISO/IEC 10646 to Unicode, see the FAQ on the Unicode website at http://unicode.org/faq/unicode_iso.html.

NOTE 2 This definition was based on the more detailed descriptions in the *Dublin Core Collections Application Profile* and *ISAD(G)*, 1999.

3.2 country code

code representing a country name

NOTE Adapted from ISO 3166-1:2006, definition 3.3.

3.3 fonds

assemblage of records, regardless of form or medium, organically created and/or accumulated and used by a particular person, family or corporate body in the course of that creator's activities and functions

NOTE 1 See also **collection** (3.1).

NOTE 2 Adapted from *ISAD(G)*, 1999.

3.4 ISIL

international standard identifier for libraries and related organizations

NOTE See ISO 15511.

3.5 library identifier

alphanumeric element (of the ISIL) designed to accommodate existing national systems of library identification or newly assigned identifiers for libraries or related organizations

3.6 memory organization

cultural heritage institution

institution involved in the collection and preservation of cultural information, such as a library, archive or museum that is itself, together with its collections, established as a permanent entity

3.7 organization

corporate entity such as an agency, archive, business, educational or government institution, or museum, that can be formed in subordinate units, and which is capable of providing a service, producing a product, conducting a programme or holding resources

NOTE 1 Programmes and projects are not organizations (in the context of ISIL) and are therefore excluded.

NOTE 2 See ISO 15511.

3.8 resource

work created as a result of intellectual effort, which can be expressed in physical or digital form

NOTE Adapted from ISO 8459:2009, definition 2.39.

3.9 series

documents arranged in accordance with a filing system or maintained as a unit because they result from the same accumulation or filing process, or the same activity, they have a particular form, or because of some other relationship arising out of their creation, receipt, or use

NOTE A series is also known as a records series.

[*ISAD(G)*, 1999]

4 Structure and syntax of the ISCI

4.1 Rules for structure and syntax

The ISCI is a variable-length identifier consisting of two parts:

- a) the identifier for the organization (ISIL) within square brackets; and
- b) the collection identifier string, assigned within a specific organization, identifying either an entire collection, a super collection or a sub-collection.

NOTE The depth of a collection hierarchy is a local decision.

The parsing rule for ISIL is the first pair of square brackets within the ISCI string. This can be expressed in the following way:

[ISIL]collectionIdentifierString

or formally, using the Backus-Naur Form:

<ISCI> ::= [<ISIL>] <Collection identifier string>

There is no reliable generic method to determine the length of an ISCI when the identifier is incorporated in unstructured text. Collection identifier strings can contain any character, including, for example, spaces or other whitespace characters. In structured text like a metadata record, ISCI parsing can rely on the encoding of the document in which the ISCI is embedded.

EXAMPLE 1

[FI-H]Hebraica = National Library of Finland: Hebraica collection.

EXAMPLE 2

[FI-Ht]J = Helsinki University Libraries, Theology Library: Jewish collection.

EXAMPLE 3

[FR-751041001]Casadesus1 = Bibliothèque nationale de France. Département des Arts du spectacle. Fonds Christian Casadesus. Archives de la Compagnie du Regain et du Théâtre de l'Ambigu.

[FR-751041001] is the ISIL of Département des Arts du spectacle de la BnF.

<Casadesus1> is the internal identifier of the fonds.

EXAMPLE 4

[FR-751041002]Douay = Bibliothèque nationale de France. Bibliothèque de l'Arsenal. Fonds Georges Douay. Collection de manuscrits et d'imprimés (pièces de théâtre et ouvrages relatifs au théâtre). Les textes manuscrits sont rassemblés en recueils.

[FR-751041002] is the ISIL of Bibliothèque de l'Arsenal de la BnF.

<Douay> is the internal identifier of the fonds.

4.2 Identifier for the organization (ISIL)

An ISIL identifies an organization, or one of its subordinate units, that is responsible for an action or service in an informational environment (e.g. creation of machine-readable information). It can be used to identify the originator or holder of a resource (e.g. library material or archive fonds).

The ISIL shall be used as the prefix of the ISCI. If an organization does not have an ISIL, it shall first request the ISIL in accordance with ISO 15511 before ISCI assignment can start.

An organization can have one ISIL or more. For instance, the Staatsbibliothek zu Berlin can have a domestic ISIL and another assigned by OCLC® (Online Computer Library Center). One, and only one, of these ISILs,

preferably the one assigned locally, shall serve as the basis for ISCI assigned by the organization. The order of preference in choosing the ISIL for the ISCI prefix shall be as follows:

- a) a country-code-based ISIL;
- b) a non-country-code-based ISIL.

EXAMPLE

DE-1 = Staatsbibliothek zu Berlin, Haus unter den Linden (German national ISIL).

OCLC-SBG = Staatsbibliothek zu Berlin, Haus unter den Linden (OCLC-ISIL).

In this case, the DE-1 identifier should be used.

However, if an organization only has one ISIL, and this is not the national country-code-based ISIL, then this ISIL may be used for the basis of the ISCI.

ISILs of subordinate units can be used as the basis for ISCI assigned for collections hosted by these units. A collection shall have one, and only one, ISCI assigned; if the ISCI is based on the ISIL of a subordinate unit, a second ISCI based on the ISIL representing the parent organization shall not be assigned to the same collection.

Collections, fonds or series scattered in sundry locations (physically or virtually) and/or hosted by several organizations can either use the ISIL of the principal host or register a joint ISIL with the ISIL national agency.

International or multinational collections, fonds and series may use the ISIL of the principal host, if one exists. In future, such collections, fonds and series will be able to utilize a global non-country-code prefix, if and when there is an ISIL agency which assigns and administers these prefixes.

The structure and registration of the ISIL is defined in ISO 15511.

4.3 Collection identifier

4.3.1 General

The collection identifier string is an identifier indicating the collection, fonds or part(s) of the collection.

4.3.2 Identifier construction

The collection identifier string is of variable length. It shall contain at least one character. The identifier for the organization (ISIL) alone shall not be sufficient to identify the entirety of an institution's collection.

The collection identifier string is of unlimited length, containing UCS characters (equivalent at the time of publication to Unicode 6.0) as defined in ISO/IEC 10646.

Collection identifier strings are case-insensitive.

EXAMPLES

[FI-Ht]J (uses capital letters after the ISIL code)

is equivalent to

[FI-Ht]j

Memory organizations may use existing local collection identifiers as ISCI if they conform to the ISCI syntax and structure requirements and if proper encoding is used where necessary. If there is a local collection identifier which cannot be used as an ISCI, this internal identifier may also be included in the metadata record, in the *Relation* element using the *replaces* property.

One collection shall have one, and only one, ISCI. A collection identified by an ISCI may contain one or more sub-collections, each of which may also be identified by an ISCI. A collection identified by an ISCI may be a member of a super-collection which may also be identified by an ISCI.

4.3.3 Identifier persistence

Collection identifier strings shall be unique and persistent; once assigned, they can never be re-used, even if the original collection disappears.

When a collection moves from one institution to another, entailing a change of ISIL, it is recommended that the collection identifier string be kept in association with the new ISIL. The metadata of the collection shall include all former ISCI assigned to that collection. The metadata of the past collection can be enriched with the ISCI of the new collection.

When two or more collections merge, a new ISCI shall be assigned to the new collection. The original ISCI shall be retained to identify their former collections as sub-collections in the new collection, and they should be listed in the ISCI metadata of the new collection in the *Sub-Collection* element.

When a collection is split into two or more collections, each new collection will get a new ISCI, but the ISCI of the former collection should be given in the *Super-Collection* element in metadata records describing the new collections.

4.4 Presentation of the ISCI

When the ISCI is written, printed or otherwise visually presented, it shall be preceded by the letters ISCI, separated from the identifier by a space.

ISCI [ISIL]collectionIdentifierString

EXAMPLE

ISCI [FI-O]Kekkonen = Oulu University Library, President Urho Kekkonen collection

The prefix "ISCI" and the space that follows shall not be considered to form a part of the ISCI.

5 ISCI metadata

5.1 General

Each collection, fonds or series with an ISCI shall be described. While practices applied for collection description will vary from one country and initiative to the next, there should be a core set of metadata provided by each organization using the ISCI.

Hosts maintaining collection metadata sets should be prepared to make the data available for harvesting. *The Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)*, version 2.0, is recommended since it enables both efficient harvesting of metadata from multiple source databases into a single union database, and sharing of metadata among systems.

The ISCI shall be recorded in the *Collection Identifier* element of ISCI metadata (see 5.2.1).

The ISCI of a sub-collection should be recorded in the *Sub-Collection* element. The ISCI of the super-collection should be recorded in the *Super-Collection* element. Identifiers of associated collections can be recorded in the *Associated collection* element (see 5.2.2).

The former ISCI of the collection should be included in the metadata in the *Relation* element using the *replaces* property. A future ISCI of the collection can be provided in the *Relation* element using the *isReplacedBy* property (see 5.2.3).

5.2 Descriptive metadata

5.2.1 General

At the time of writing this International Standard, all the proposed metadata elements except *Relation* are listed in the *Dublin Core Collections Application Profile*; they have been described in more detail there.

5.2.2 Mandatory elements

Mandatory elements of ISCI metadata, if applicable, are:

- Title [dc:title];
- Description [dcterms:abstract];
- Language [dc:language];
- Collection identifier [dc:identifier];
- Is Located At [cld:isLocatedAt];
- Is Accessed Via [cld:isAccessedVia];
- Custodial history (for description of ownership changes) [dcterms:provenance];
- Date Collection Accumulated [dcterms:created];
- Owner [marcrel:OWN];
- Type [dc:type:Collection] (default value = collection).

Some of these elements are not relevant to all collections. For instance, Is Accessed Via is only valid for the collections available (in some valid sense of the word) via the Internet. However, if the collection is accessible in this manner, Is Accessed Via is mandatory.

5.2.3 Recommended elements

Usage of the following elements is recommended:

- Subject [dc:subject];
- Collector [dc:creator];
- Item type [cld:itemType];
- Item format [cld:itemFormat];
- Sub-Collection [dcterms:hasPart];
- Super-Collection [dcterms:isPartOf];
- Associated collection [cld:associatedCollection];
- Relation [dcterms:replaces, dcterms:isReplacedBy].

5.2.4 Structure and encoding

The structure and encoding of ISCI metadata are described in Annex B.

6 Administration of the ISCI system

Because each organization can assign its own ISCI, there is no need for an ISCI Registration Authority. Organizations may choose to establish ISCI-related services as ISCI centres. There is no formal registration of ISCI centres and no centre may claim exclusive coverage in any territory or domain. ISCI centres may be regional, language-based, national or international.

The principal tasks of the centres are outlined in Annex A.

Annex A (normative)

Administration of the ISCI system

A.1 General

The ISCI system is an international system for the unique and persistent identification of collections, fonds and series.

Organizations need only an ISIL in order to express their existing local collection identifiers as ISCI. Once standard collection identifiers have been generated and there is sufficient metadata describing the identified collections, the organization should enable harvesting of the collection metadata via an interface based on *The Open Archives Initiative for Metadata Harvesting (OAI-PMH)* protocol.

A.2 ISCI centres

ISCI centres may provide the following services.

- a) Promoting, co-ordinating and supervising the ISCI system in compliance with the specifications of this International Standard in their areas and representing the interests of their ISCI community internationally.
- b) Providing ISCI users with assistance and support in the assignment of collection identifiers and cataloguing collections according to the guidelines expressed in this International Standard.
- c) Fostering utilization of ISCI and the harvesting of collection-related metadata.
- d) Assisting organizations in the acquisition of ISILs (if needed).

ISCI centres may work with the ISIL Registration Authority and national ISIL agencies to educate ISIL users on the relationship between ISIL and ISCI and to obtain support for the establishment of national ISIL agencies where needed for the assignment of ISCI.

ISCI centres may maintain topical, regional, national and/or international ISCI registries, created by direct contribution or by harvesting the collections metadata from relevant local, national or regional databases, either by themselves, jointly or in co-operation with other organizations.

Annex B (normative)

Structure and encoding of ISCI metadata

B.1 Encoding of the metadata elements

Encoding should be in XML, as described in the *Dublin Core Collections Application Profile*.

The *Dublin Core Collections Application Profile* should also be used for describing the collection, or it should at least be possible to convert internal metadata into the format stipulated in the profile. Metadata based on the *Dublin Core Collections Application Profile* may be migrated in other formats such as MARC 21.

In addition to the domestic language(s), textual metadata may be provided in English and/or other languages. The language of each element should be indicated properly, so as to enable automated processing of the data.

B.2 Use in exchanging metadata

Exchanging collection metadata with *The Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)* protocol allows for the creation of topical, national and even international physical union catalogues.

While the ISCI will provide a basis for duplicate control of collection metadata records and a unique access key, it does not alone guarantee efficient information retrieval. Collection hosts should also follow shared principles in the description of collections, and the metadata records provided should contain the metadata elements described in 5.2.2.

Bibliography

- [1] ISO 3166-1:2006, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*
- [2] ISO 8459:2009, *Information and documentation — Bibliographic data element directory for use in data exchange and enquiry*
- [3] *ISAD(G) General International Standard Archival Description*, second edition, adopted by the ICA Ad Hoc Committee on Descriptive Standards, Stockholm (ICA/DDS), Sweden, 19 to 22 September 1999. Available from: <http://www.icacds.org.uk/eng/ISAD%28G%29.pdf>
- [4] LAGOZE, C., VAN DE SOMPEL, H., NELSON, M., WARNER, S., eds. *The Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH)*. Version 2.0. Open Archives Initiative, 2002-06-14. Available from: <http://www.openarchives.org/OAI/openarchivesprotocol.html>

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