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Information and Documentation —
International Standard Name
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BUREAU OF INDIAN STANDARDS
मानक भवन, 9 बहादुर शाह ज़फर मार्ग, नई दिल्ली - 110002
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI - 110002

www.bis.gov.in www.standardsbis.in

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NATIONAL FOREWORD

This Indian Standard which is identical to ISO 27729 : 2012 'Information and documentation — International standard name identifier (ISNI)' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Documentation and Information Sectional Committee and approval of the Management and Systems Division Council.

The text of the ISO standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'; and
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.


In this adopted standard, reference appears to an International Standard for which no Indian Standard exists. The technical committee have reviewed the provisions of the following International Standards referred in this standard and has decided that they are acceptable for use in conjunction with this standard:

International Standard

Title

ISO/IEC 7064

Information technology — Security techniques — Check character systems

 [Annex A](#), [Annex B](#), [Annex C](#) and [Annex D](#) are integral part of this standard and [Annex E](#) is information only.

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Introduction

This International Standard includes a specification for an identifier for the public identities of parties. It aims to provide an efficient means to disambiguate such public identities in the digital environment so that the roles participants play in creation, production, management and content distribution chains can be recognized accurately, and the content they are involved in creating can be managed effectively.

Identifiers created under this International Standard can be used to identify public identities of parties in databases and they can support the exchange of information in the management of media content.

Indian Standard

INFORMATION AND DOCUMENTATION — INTERNATIONAL STANDARD NAME IDENTIFIER (ISNI)

1 Scope

This International Standard specifies the International Standard name identifier (ISNI) for the identification of public identities of parties, i.e. the identities used publicly by parties involved throughout the media content industries in the creation, production, management and content distribution chains.

The ISNI system uniquely identifies public identities across multiple fields of creative activity and provides a tool for disambiguating public identities that might otherwise be confused.

The ISNI is not intended to provide direct access to comprehensive information about a public identity but can provide links to other systems where such information is held.

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/IEC 7064, *Information technology — Security techniques — Check character systems*

3 Terms and definitions

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

3.1

party

natural person or legal person, whether or not incorporated, or a group of either

3.2

registrant

party (3.1) that requests an ISNI from the Registration Authority

3.3

public identity

identity of a **party** (3.1) or a fictional character that is or was presented to the public

3.4

name

character string by which a **public identity** (3.3) is or was commonly referenced

4 Structure and syntax of the ISNI

4.1 An ISNI shall consist of 16 digits. It shall consist of two components:

- a) 15 decimal digits, and
- b) a check character.

4.2 An ISNI shall consist of a “dumb” number, of which no meaning shall be embedded in, conveyed by or imputed to any part or subset of the number.

4.3 When an ISNI is written, printed or otherwise presented in a human-readable format:

- a) it shall be preceded by the letters ISNI, separated from the identifier by a space, and
- b) the 16 digits shall be displayed as four blocks of four digits, with each block separated from the next by a space.

EXAMPLE ISNI 1422 4586 3573 0476

The characters “ISNI” and the space characters shall not be considered to form part of the ISNI.

4.4 The check character may be either a decimal digit or the character “X” and shall be calculated using the preceding 15 decimal digits in accordance with the ISO/IEC 7064, MOD11-2 algorithm, as described in Annex A.

5 Allocation of an ISNI

Annex B gives the principles for the allocation and use of an ISNI.

6 Administration of the ISNI system

The ISNI system shall be administered by the Registration Authority of this International Standard, hereafter referred to as the ISNI Registration Authority.

The ISNI Registration Authority shall be responsible for defining the system architecture supporting the ISNI.

The principal tasks of the ISNI Registration Authority are outlined in Annex C.

7 Association of an ISNI with ISNI metadata

An ISNI shall be associated with ISNI metadata (see Annex D) about the public identity it identifies by means of a register. The ISNI Registration Authority shall be responsible for the maintenance of this register.

8 Association of an ISNI with other identifiers

The relationship of an ISNI with other identifiers is described in Annex E.

Annex A (normative)

Method for calculating the check character of an ISNI

A.1 General

The purpose of the check character is to guard against errors caused by the incorrect transcription of an ISNI.

A.2 Calculation of the check character

The check character shall be calculated in accordance with ISO/IEC 7064, MOD 11-2. The check character shall always be located in the extreme right (low order) position.

Multiply the character values by their weights, then add the products. Strings including the check character are valid if the sum of these products is congruent to 1 (mod 11).

Table A.1 — Method for calculating the check character of 1422 4586 3573 047

Step	Procedure	Result														
1	Take the weighting factors associated with each digit position as defined in Table A.2. The check digit has position 1 and is not included at this stage.	10	5	8	4	2	1	6	3	7	9	10	5	8	4	2
2	Take the first fifteen digits of the ISNI. The check character will be the sixteenth and last character.	1	4	2	2	4	5	8	6	3	5	7	3	0	4	7
3	Multiply each digit in turn by its weighting factor.	10	20	16	8	8	5	48	18	21	45	70	15	0	16	14
4	Add these numbers together.	$10 + 20 + 16 + 8 + 8 + 5 + 48 + 18 + 21 + 45 + 70 + 15 + 0 + 16 + 14 = 314$														
5	Select a number such as its sum with the previous result is congruent to 1 (mod 11). If the above number is 10 then replace it by an "X".	$314 + 6 = 320$ and $320 + 11 = 29 \text{ remainder } 1$														
6	Append the result of step 5, which is the check character, to the extreme right (low order) position of the base number of the ISNI.	1422 4586 3573 047 6														
NOTE		A number is congruent to 1 (mod 11) when the division of this number by 11 yields a remainder of 1.														

Table A.2 — Weights of the 16 digits

Position	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Weight	10	5	8	4	2	1	6	3	7	9	10	5	8	4	2	1

The weight, w_i , is calculated using $w_i = 2^{(i-1)} \pmod{11}$ where i is the digit position starting from the right and mod 11 is the Modulus 11.

Annex B (normative)

General principles for the allocation and use of ISNI

An ISNI shall be allocated in accordance with the following principles.

- a) The ISNI Registration Authority shall be responsible for allocating an ISNI to a public identity of a party upon request by a registrant.
- b) The same ISNI shall be allocated to one and only one public identity of a party.
- c) Alternative spellings, alternative presentations, character set variances, script variances and linguistic variances do not by themselves justify the allocation of different ISNIs.

EXAMPLE 1 William Shakespear and William Shakespeare are alternative spellings of the same name.

EXAMPLE 2 e. e. cummings and E. E. Cummings or Oxford University Press and OUP are alternative presentations of the same name.

EXAMPLE 3 Günter Graß, Guenter Grass and Guenter Graß are character set variants of the same name.

EXAMPLE 4 Ciaikovsky, Pjotr Iljic is a script variant of Пётр Ильич Чайковский.

EXAMPLE 5 Pyotr Tchaikovsky and Peter Tchaikovsky are linguistic variants of the same name.

- d) Multiple public identities relating to the same party shall have separate ISNIs.

EXAMPLE Ruth Rendell and Barbara Vine are two public identities of the same party. Ruth Rendell and Barbara Vine are allocated distinct ISNIs.

- e) Corporate entity name changes resulting from splits or mergers justify the allocation of a different ISNI.

EXAMPLE 1 Charles Scribner's Sons merged in 1978 with Atheneum to become The Scribner Book Companies. All three entities are allocated different ISNIs.

EXAMPLE 2 Warner Music Group was split off from Time Warner. Warner Music Group is allocated a new ISNI.

- f) Links between multiple public identities relating to the same party may be established by including the related ISNI and the type of relationship in the metadata set of the ISNI of each public identity as described in D.3.

EXAMPLE The ISNI metadata set for Ruth Rendell can include the following metadata elements:

— Related identifier: ISNI 1422 4586 3573 0476

— Type of relationship: "is the pseudonym of"

ISNI 1422 4586 3573 0476 being the ISNI for Barbara Vine.

- g) An ISNI can be allocated to groups of natural persons or legal persons.

EXAMPLE The Beatles can be allocated an ISNI.

- h) Once allocated, an ISNI shall never be re-used by being allocated to another public identity, even if it is found to have been issued in error. If a party dies, the ISNI allocated to its public identities is kept.
- i) The ISNI Registration Authority shall define different classes of registrants and rules governing their authority to act on behalf of, or in respect of, parties in applying for an ISNI.

Annex C (normative)

Administration of the ISNI system

C.1 General

The ISNI system shall be administered by the ISNI Registration Authority¹⁾ in accordance with the specifications outlined in C.2.

C.2 ISNI Registration Authority

The ISNI Registration Authority shall provide the following services.

- a) Promote, coordinate and supervise the ISNI system in compliance with the specifications of this International Standard and represent the interests of the ISNI community to other organizations.
- b) Ensure and allocate only unique ISNIs.
- c) Ensure that there are no unreasonable restrictions to the allocation of ISNIs.
- d) Develop, implement, monitor, publish and enforce policies and procedures governing the operations of ISNI.
- e) Manage and maintain registrant data, metadata and administrative data related to the assignment of ISNIs as is necessary to support the efficient management of ISNIs.
- f) Ensure the maintenance of registers of ISNI numbers and their associated administrative data.
- g) Publish and maintain the metadata set (and its corresponding formal schema and data dictionary) required for the allocation of an ISNI that will ensure that all public identities registered can be disambiguated.
- h) Facilitate the review, update and augmentation of ISNI registration metadata and provide guidance where multiple ISNIs have been assigned to a single public identity.
- i) Review and decide on appeals of decisions made in such matters as
 - 1) the rejection of ISNI applications, and
 - 2) any disputes concerning the appropriateness of assignments of ISNIs to public identities.
- j) Ensure that appropriate documentation is available to users of the ISNI system.
- k) Develop and maintain such systems as are required to support the assignment of ISNIs and the collection of related data as required by this International Standard.
- l) Ensure that continuous service is provided to registrants and enquirers.

1) ISO maintains an online list of Maintenance Agencies and Registration Authorities relevant to their standards at http://www.iso.org/iso/maintenance_agencies.html. Users are encouraged to consult this database for the most up-to-date information concerning Maintenance Agencies and Registration Authorities.

- m) Allocate ISNIs to the public identities of parties.
- n) Correct inaccurate ISNIs and ISNI metadata if such inaccuracies are discovered.
- o) Compile and maintain statistical data on its ISNI-related operations and report these.
- p) Promote, educate and train others in the use of the ISNI system in compliance with the specifications of this International Standard.

Annex D (normative)

Registration metadata for ISNI assignment

D.1 General

The ISNI Registration Authority shall define the metadata sets required from all registrants. The metadata set may differ depending on the type of public identity being registered. Table D.1 outlines an example for a natural person. The metadata shall include the following.

- a) **Name of public identity**, defined as a group of data elements that comprises the different components of a name and that supports all types of name representations.
- b) **Type of party**, defined as an allowed value (e.g. natural person, legal person, group) describing the nature of the party, from an allowed value list published by the ISNI Registration Authority.
- c) At least one of each of the following elements:
 - 1) **external data link**, defined as the machine-readable link in the form of a uniform resource identifier to an external set of data relating to activities in the creation class/role defined in 2) and 3);
 - 2) **creation class**, defined as the known type of creation the party has played from an allowed value list published by the ISNI Registration Authority (e.g. musical work/author, literary work/publisher, audio-visual work/director);
 - 3) **role**, defined as the role the party has played in the creation class specified in 2), from an allowed value list published by the ISNI Registration Authority (e.g. author, publisher, director, etc.).

Table D.1 — Example of metadata elements for a natural person

Metadata element	Value	Description
ISNI	ISNI 8462 8323 5653 6435	The ISNI number for Ruth Rendell.
Name of public identity	Ruth Rendell	The ISNI Registration Authority shall define in more detail the structure of this data element (e.g. first name, last name, title).
Type of party	Natural person	The ISNI Registration Authority shall publish the list of allowed values (e.g. natural person, legal person).
Date/type of date	17 February 1930/date of birth	The ISNI Registration Authority shall define the format of the date (e.g. ISO 8601, Gregorian calendar, Hebrew calendar,) and the list of allowed values for the type of date (e.g. date of birth, date of incorporation).
Place/type of place	London, UK/place of birth	The ISNI Registration Authority shall define the format of the place (e.g. ISO 3166, ISO 6709) and the list of allowed values for the type of place (e.g. place of birth, place of incorporation).
External data link	http://authorities.loc.gov/cgi-bin/auth?ISNI=8462832356536435	A resolvable link such as a URI (a URL in this example) where additional information on the public identity may be found. In this example, there is a link to the Library of Congress name authority file.
Creation class	Literary work	The ISNI Registration Authority shall publish the list of allowed values for classes (e.g. musical work, literary work).
Role	Author	The ISNI Registration Authority shall publish the list of allowed values for roles (e.g. author, director, performer).
Related identifier	ISNI 1422 4586 3573 0476	A related ISNI to Ruth Rendell. In this example, it is the ISNI of Barbara Vine, a known alternative pseudonym for Ruth Rendell.
Relationship	Is the pseudonym of	The ISNI Registration Authority shall publish the list of allowed values for relationships between the public identity and the related identifier. In this example, the related identifier links to a public identity known to be an alternative pseudonym of Ruth Rendell.

D.2 Data elements

The ISNI Registration Authority shall specify the following elements that it may require to allow the disambiguation of public identities.

- a) **Date/type of date**, defined as a group of data elements comprising the date itself as may be expressed in different calendars, and by the type of date, such as date of birth or of incorporation, from an allowed value list published by the ISNI Registration Authority.
- b) **Place/type of place**, defined as a group of data elements comprising place, type of place (such as country of birth or country of incorporation) from an allowed value list published by the ISNI Registration Authority.

D.3 Other data elements

The ISNI Registration Authority shall also specify the following elements:

- a) **related ISNI**, defined as the ISNI of another public identity related to the party associated with the current public identity;
- b) **relationship**, defined as the allowed value describing the nature of the relationship as published by the ISNI Registration Authority (e.g. is the pseudonym of).

D.4 Procedures for updating the metadata

These procedures shall be defined by the ISNI Registration Authority.

Annex E (informative)

Relationship between ISNI and other identifiers

E.1 General

As an identifier of public identities across multiple domains of creation, the ISNI will interact with many other International Standards related to identification.

E.2 Relationship with other party identifiers

E.2.1 Concept of “bridge” identifier

Because of the lack of International Standards, exchange of information among industries has been difficult and has required extensive manual intervention. This can lead to inaccuracies.

Furthermore, each industry has a different set of requirements and therefore maintains a different set of metadata associated with its identifiers. In most cases, the metadata set also contains confidential information such as contractual terms and bank references. This confidential information cannot be shared with other industry partners.

The ISNI has been designed as a “bridge” identifier, allowing various industry partners to exchange information relating to a party without the need to disclose confidential information. To this extent; the ISNI only maintains the minimum metadata set needed to differentiate (disambiguate) two public identities. All other relevant information remains in proprietary databases secured by conditional access.

E.2.2 Architecture of party identification systems

Figure E.1 shows an example of how the ISNI database may be integrated with proprietary party databases.

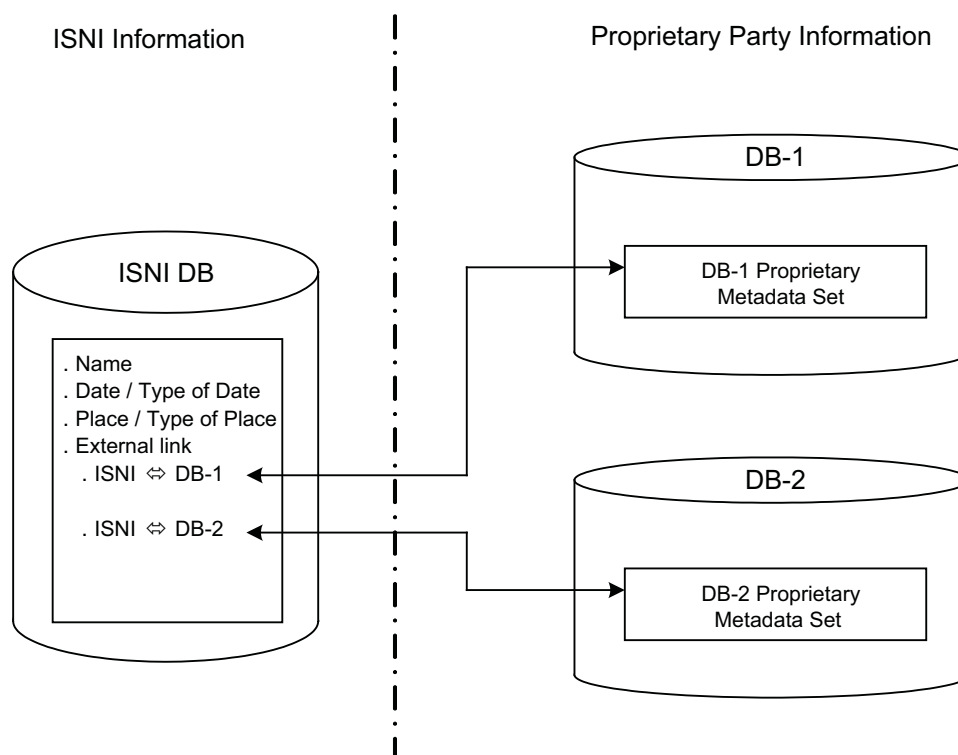


Figure E.1 — The architecture of party identification systems

Beyond the registration metadata of a public identity, the ISNI database (ISNI DB) holds the link of each proprietary database (DB-1 and DB-2) holding additional information on the public identity.

Those proprietary databases may exchange information on a given party by referring to its ISNI(s).

EXAMPLE The following example illustrates the manner in which a user can obtain information from the two databases.

- DB-1 is a database containing proprietary information on music authors and composers.
- DB-2 is a database containing proprietary information on music performers.
- A user connected to DB-1 wants to retrieve additional information on a composer, about whom some information is known, pertaining to his role as a performer of music. This information is stored in DB-2.
- Because both systems use different identifiers and different sets of metadata, it is not possible to initiate a direct query on DB-2 based on the information contained in DB-1.
- Instead, DB-1 extracts the relevant ISNI from his database and queries the ISNI database to search for the proper link referencing DB-2.
- DB-1 can now query DB-2 using this link and, if appropriately authorised by the operator of DB-2, retrieve the accurate performer's information.

E.3 Relationship with other ISO identification systems

The media content industries make extensive use of identification systems such as the following:

- ISBN (ISO 2108) for books,
- ISSN (ISO 3297) for serials,
- ISRC (ISO 3901) for sound recordings,
- ISMN (ISO 10957) for printed and notated music,
- ISAN [(ISO 15706 (all parts))] for audiovisual works,
- ISWC (ISO 15707) for musical works.

Each of these resources has contributors such as authors, composers, performers or producers who need to be accurately identified.

Each of these International Standards has different methods of identifying their respective contributors. The most common method used is the name of the contributor expressed in a free text field.

The ISNI is intended to be the identifier that identifies public identities of parties.

Bibliography

- [1] ISO 2108, *Information and documentation — International standard book number (ISBN)*
- [2] ISO 3166 (all parts), *Codes for the representation of names of countries and their subdivisions*
- [3] ISO 3297, *Information and documentation — International standard serial number (ISSN)*
- [4] ISO 3901, *Information and documentation — International Standard Recording Code (ISRC)*
- [5] ISO 6709, *Standard representation of geographic point location by coordinates*
- [6] ISO 8601, *Data elements and interchange formats — Information interchange — Representation of dates and times*
- [7] ISO 10957, *Information and documentation — International standard music number (ISMN)*
- [8] ISO 15706-1, *Information and documentation — International Standard Audiovisual Number (ISAN) — Part 1: Audiovisual work identifier*
- [9] ISO 15706-2, *Information and documentation — International Standard Audiovisual Number (ISAN) — Part 2: Version identifier*
- [10] ISO 15707, *Information and documentation — International Standard Musical Work Code (ISWC)*
- [11] IETF RFC 3986, *Uniform Resource Identifier (URI): Generic Syntax*

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BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002

Telephones: 2323 0131, 2323 3375, 2323 9402

Website: www.bis.gov.in

Regional Offices:

	Telephones
Central : 601/A, Konnectus Tower -1, 6 th Floor, DMRC Building, Bhavbhuti Marg, New Delhi 110002	{ 2323 7617
Eastern : 8 th Floor, Plot No 7/7 & 7/8, CP Block, Sector V, Salt Lake, Kolkata, West Bengal 700091	{ 2367 0012 2320 9474
Northern : Plot No. 4-A, Sector 27-B, Madhya Marg, Chandigarh 160019	{ 265 9930
Southern : C.I.T. Campus, IV Cross Road, Taramani, Chennai 600113	{ 2254 1442 2254 1216
Western : 5 th Floor, NTH Complex (W Sector), F-10, MIDC, Andheri (East), Mumbai 400093	{ 283 25838

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