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सूचना एवं प्रलेखन — अंतर्राष्ट्रीय मानक म्यूजिक संख्या (आई.एस.एम.एन.)

Information and Documentation — International Standard Music Number (ISMN)

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भारतीय मानक ब्यूरो BUREAU OF INDIAN STANDARDS मानक भवन, 9 बहादुरशाह ज़फर मार्ग, नई दिल्ली-110002 MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI-110002 www.bis.org.in www.standardsbis.in

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NATIONAL FOREWORD

This Indian Standard which is identical with ISO 10957 : 2009 'Information and documentation — International standard music number (ISMN)' issued by the International Organization for Standardization 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 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'.
- 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.

The technical committee has reviewed the provisions of the following International Standard/Other Publication referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard:

 International Standard/ Other Publication
 Title

 ISO/IEC 15420
 Information technology — Automatic identification and data capture techniques — Bar code symbology specification — EAN/UPC

The ISMN Users' Manual. Berlin, International ISMN Agency — available online at http://ismn-international.org/

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Annexes A, B, C, D and E form an integral part of this standard.

Introduction

The International standard music number (ISMN) was developed by and for the music publishing sector as a separate system to complement the International standard book number (ISBN). The existence of the ISMN as a separate identifier system makes it possible to identify printed and notated music as a distinct category of publication within the global supply chain and to develop trade directories and similar services for the specialized market for music publications. In addition, some features of the ISBN system, such as the inclusion of national and language groupings within the structure of the ISBN and its administration, are not suited to the practices and organization of the music sector where linguistic content does not have the same relevance that it does for textual publications. For these and other practical reasons, the ISMN and ISBN co-exist as separate identification systems.

Indian Standard

INFORMATION AND DOCUMENTATION — INTERNATIONAL STANDARD MUSIC NUMBER (ISMN)

1 Scope

This International Standard specifies the International standard music number (ISMN), which is a means of uniquely identifying editions of notated music. It specifies the assignment of a unique ISMN on such editions so as to distinguish one edition of a title or one separate component of an edition from all other editions. This International Standard also specifies the construction of an ISMN and its location on editions of notated music.

This International Standard is applicable to editions of notated music. The ISMN can also be used to identify editions of notated music that are presented with other media to form an integrated whole (e.g. an edition that, together with a sound recording, forms a single product).

The ISMN is not suitable for the identification of material in other media that are issued separately, such as sound or audiovisual products (e.g. CDs or DVDs), for which other standards such as ISO 3901 (International Standard Recording Code) and ISO 15706 (International Standard Audiovisual Number) are applicable.

The ISMN is not suitable for the identification of the products themselves (CDs or DVDs), for which the European article numbering (EAN) 13-digit bar code can be used.

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 15420, Information technology — Automatic identification and data capture techniques — Bar code symbology specification — EAN/UPC

3 Terms and definitions

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

3.1

check digit

added digit which can be used to verify the accuracy of the assignment of the ISMN through a mathematical relationship to the digits contained in that number

3.2

edition

all copies of a notated music resource produced from substantially the same original input and issued by the same entity or group of entities or a person

NOTE This covers material that is for sale, for hire, gratis, or for copyright purposes only.

3.3

ISMN prefix

prefix consisting of four digits of which the first segment of 3 digits is the product code "979" assigned by the global GS1 (formerly EAN.UCC) product identification system and of which the fourth digit is 0 and defines the contingent reserved for notated music

NOTE The European Article Numbering International-Uniform Code Council (EAN.UCC) was a supply chain standards family name, formally the EAN.UCC System. In 2005, EAN changed its name to GS1.

3.4

item

edition of notated music, or a separately available component thereof

3.5

notated music

graphical representation of music in any format

4 Structure and syntax of an International standard music number (ISMN)

4.1 Basic structure and syntax of an ISMN

Starting from 1 January 2008, all ISMN shall consist of a thirteen-digit number (Arabic numerals 0 to 9 only) made up of the following four elements:

- the prefix element 979-0;
- a publisher element;
- an item element;
- a check digit.

EXAMPLE ISMN 9790345123458

When the 13-digit ISMN is presented in bar code on printed music publications, it shall comply with the specifications given in ISO/IEC 15420. Therefore, an ISMN presented in bar code is fully compatible with GS1 data structures, including the EAN 13-bar code.

Information on the distribution and management of ISMN prefix ranges is given in the ISMN Users' Manual¹⁾.

4.2 Prefix element

The first element of a 13-digit ISMN shall be a 4-digit prefix. The first three digits of the ISMN prefix shall be "979", i.e. corresponding to the Bookland code within the GS1 system (see Note). The segment containing "979" shall be separated for display purposes by a hyphen from the fourth digit (0) of the ISMN prefix.

NOTE In 1980, the EAN Authority and the International ISBN Agency agreed to assign a specific 3-digit prefix to a fictitious country designated as "Bookland". The numerical country codes "978" and "979" were reserved for this "country" to encode the ISBN. The code 979 was chosen to represent the 13-digit code.

¹⁾ The ISMN Users' Manual is available at http://ismn-international.org/. See Reference [11].

4.3 Publisher element

The second element of the ISMN shall be the publisher element. It varies in length from publisher to publisher according to the output of each publisher.

The publisher element shall be assigned by the Registration Authority for this International Standard.

4.4 Item element

The third element of the ISMN shall be the item element. It identifies an edition or an individual component of an edition (e.g. full score, miniature score, set of wind parts, oboe part) in accordance with the specifications given in Annex A. The length of the item element is determined by the length of the publisher element which precedes it.

The item element is normally assigned by the publisher of the printed or other notated music publication.

4.5 Check digit

The fourth and final element of the ISMN shall be the check digit.

The check digit is calculated on a weighted modulus 10 in accordance with Annex B.

5 Presentation and location of the ISMN on notated music

5.1 Presentation

When an ISMN is displayed in human readable form (i.e. a form meant primarily to be read or written by a person, in contrast to a form primarily meant to be used by data processing equipment), it shall be preceded by the letters ISMN and each of the elements of the ISMN should be separated from the others by a hyphen as in the following example.

EXAMPLE ISMN 979-0-123-45678-5

5.2 Location and display

5.2.1 The ISMN shall be printed on the back cover of the item and on the back of the jacket if the item has one.

5.2.2 If practicable, the ISMN should also be printed with the copyright notice of the edition.

5.2.3 If it is not possible to print the ISMN in any of these positions, the ISMN shall be printed in some other prominent position on the item.

5.2.4 When the item is a single sheet, the ISMN may be printed in a prominent position in only one place on the item.

5.2.5 If the item involves display of content stored in electronic form (e.g. an online item), the ISMN shall appear on the page or screen that displays the title or its equivalent (e.g. the initial screen displayed when the content is first accessed and/or the screen that carries the copyright notice).

5.2.6 Each volume of a multi-volume set should bear a list of all the ISMNs pertaining to the particular volume and to the set as a whole. An item within a set should also bear a list of the ISMNs for each of the other individual items in the set.

5.2.7 When the item is an anthology, the ISMN of the anthology shall be distinguished from the ISMN of any individual pieces that are published separately from the anthology.

5.2.8 If an item bears another identifier as well as an ISMN, these numbers should be printed close to each other. Each international standard number shall be preceded by the appropriate acronym (e.g. the letters ISBN, ISSN, ISRC, ISAN, ISWC, or ISMN).

6 Assignment of an ISMN

See Annex A for the principles for the assignment and use of an ISMN.

7 Administration of the ISMN system

The ISMN system shall be administered by the Registration Authority for this International Standard (hereafter referred to as the ISMN Registration Authority).

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

8 Association of an ISMN with ISMN metadata

An ISMN shall be associated with the ISMN metadata and presented as specified in Annex D. The ISMN metadata required shall enable the unique identification of the edition of notated music and shall be kept in a register.

The basic set of metadata required to register an ISMN is given in D.2.

9 Implementation guidelines for the 13-digit ISMN

The guidelines for converting the 10-digit format ISMNs to 13-digit format ISMNs are given in Annex E.

Annex A

(normative)

Guidelines for the assignment and application of ISMNs

A.1 General principles for the assignment of ISMNs

A.1.1 Each item within an edition shall be assigned its own unique ISMN (e.g. full score, miniature score, set of wind parts, oboe part).

A.1.2 Where an item is an excerpt from another work, it shall be assigned its own ISMN.

A.1.3 Each volume within a multi-volume set shall be assigned its own ISMN. A separate ISMN for the whole set should be assigned as well.

A.1.4 Each new version should be assigned its own ISMN (e.g. a transposition for a different voice, an arrangement for a different medium of performance).

A.1.5 Different formats (e.g. Braille, online electronic item) shall be assigned separate ISMNs. Each different format of an electronic item (e.g. pdf, html) that is made separately available shall be assigned a separate ISMN.

A.1.6 Any substantive revision to the content of an item, whether or not it is termed "revised", constitutes the creation of a new item (e.g. the addition of a translation of the text or of fingerings in piano music). Each new item shall be assigned its own ISMN.

A.1.7 Any of the following changes to an item, even if the content of the item itself is otherwise unchanged, constitutes the creation of a new item which shall be assigned its own ISMN:

- a) where there is a change in binding (e.g. cloth, paperbound, spiral);
- b) where the physical size of an item is substantially changed (e.g. in order to produce a new full, study or miniature score version); or
- c) where a set is broken up and the parts are made available separately; or where separately available parts are assembled to form a new set.

A.1.8 The following changes do not constitute the creation of a new item:

- a) a change of cover design;
- b) a change in colour or other marginal difference; or
- c) a change in price.

A.1.9 Once assigned, an ISMN shall never be used again, even if the item to which it was originally assigned has been out of print for a long time.

A.1.10 On the assignment of an ISMN, the appropriate metadata shall be collected by the ISMN Registration Authority (see Annex C).

A.2 Application of ISMNs

Details of the application of the ISMN are explained in a Users' Manual²⁾ available from the ISMN Registration Authority.

²⁾ The ISMN Users' Manual is available at <u>http://ismn-international.org/</u>. See Reference [11].

Annex B

(normative)

Check digit for the 13-digit ISMN

B.1 General

The purpose of the check digit is to guard against errors resulting from improper transcription of an ISMN.

B.2 Check digit requirements

The check digit for a 13-digit ISMN shall be 1 numeric character using Arabic numerals 0 to 9. The check digit shall be displayed as the final character at the end of the ISMN character string.

B.3 Calculation

The check digit for a 13-digit ISMN is calculated using a weighting algorithm which utilizes a modulus 10 check.

B.4 Presentation

When an ISMN is displayed in human readable form, it shall be preceded by the letters ISMN. Hyphens should be used to enhance readability and to provide improved understanding of the internal structure of the number but are not an integral part of the number itself.

B.5 Example of calculation for a 13-digit ISMN using modulus 10 algorithm

Each of the first 12 digits of the ISMN is alternately multiplied by 1 and 3. The check digit is equal to 10 minus the remainder resulting from dividing the sum of the weighted products of the first 12 digits by 10 with one exception. If this calculation results in an apparent check digit of 10, the check digit is 0.

Use the following steps to calculate the check digit for the ISMN 979-0-1100-0222-?:

a) **Step 1**: Determine the sum of the weighted products for the first 12 digits of the ISMN (see Table B.1).

Parameter	rameter Prefix element			Publisher element				ltem element			Check digit	Sum		
ISMN	9	7	9	0	1	1	0	0	0	2	2	2	?	
Weight	1	3	1	3	1	3	1	3	1	3	1	3	_	
Product	9	21	9	0	1	3	0	0	0	6	2	6	_	57

 Table B.1 — Calculation of check digit for an ISMN

b) **Step 2**: Divide the sum of the weighted products of the first 12 digits of the ISMN calculated in step 1 by 10, determining the remainder.

57 / 10 = 5 remainder = 7

c) **Step 3**: Subtract the remainder calculated in step 2 from 10. The resulting difference is the value of the check digit with one exception. If the remainder from step 2 is 10, the check digit is 0.

10 – 7 = 3

Check digit = 3

ISMN = 979-0-1100-0222-3

The following mathematical formula is an alternative way of expressing the calculation of the check digit:

Check digit = mod 10 {10 - [mod 10 (sum of weighted products of the first 12 ISMN digits)]}

Check digit = mod 10 $\{10 - [mod 10 (57)]\}$

Check digit = 3

The sum of the weighted products of the first 12 digits plus the check digit is required to be divisible by 10 without a remainder for the ISMN to be considered valid.

NOTE The length of the publisher and item elements are variable and might not always be the same as in the example given in Table B.1.

Annex C

(normative)

Administration of the ISMN system

C.1 General

The ISMN system is an international system for the unique identification of printed music publications and similar notated music publications in digital formats. The ISMN system shall be administered by the ISMN Registration Authority in accordance with the specifications outlined in C.2.

The Technical Management Board of ISO has appointed the International ISMN Agency³⁾ to be the ISMN Registration Authority for the implementation of this International Standard.

C.2 ISMN Registration Authority

The International ISMN Agency shall provide the following services.

- a) Promote, co-ordinate and supervise the ISMN system in compliance with the specifications of this International Standard and represent the interests of the ISMN community to other relevant organizations.
- b) Establish an advisory panel of representatives and major ISMN user groups to develop the policies and procedures of the ISMN system.
- c) Define ISMN publisher element groups and assign them.
- d) Define the rules for element groups within the structure of the ISMN and ensure that an accurate and comprehensive register of these rules is made available.
- e) Manage and maintain the registers of ISMNs, ISMN metadata, and administrative data in a secure fashion.
- f) Develop, implement, monitor, and enforce policies and procedures governing the operations of the ISMN system and the process of ISMN registration.
- g) Review and resolve duplicate assignments of ISMNs.
- h) Correct inaccurate ISMNs and ISMN metadata if proof of such inaccuracy is provided.

At the time of publication of this International Standard, the ISMN Registration Authority is held by: International ISMN Agency Schlossstrasse 50 D-12165 Berlin Germany
 E-mail: ismn@ismn-international.org
 Website: http://ismn-international.org/

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

- i) Review and decide on appeals of decisions made in such matters as:
 - rejection of ISMN applications; and
 - disputes concerning the appropriateness of assignments of ISMNs to publications.
- j) Develop, maintain, and make available documentation for users of the ISMN system.
- k) Issue notification of the assignment of an ISMN to the registrant of that music publication.
- I) Compile and maintain statistical data on its ISMN-related operations and report these annually or more frequently.
- m) Promote, educate, and train others in the use of the ISMN system in compliance with the specifications of this International Standard.
- n) Ensure that continuous service is provided with respect to the above functions.

Annex D

(normative)

Metadata for the registration of ISMNs

D.1 General

In order to provide enough information to differentiate one entity bearing an ISMN from another, the ISMN Registration Authority shall ensure that registrants provide the specified amount of metadata (descriptive information) about the publication to which the ISMN is requested to be assigned. The ISMN Registration Authority shall ensure that the metadata associated with each ISMN is maintained.

D.2 Minimum metadata set for ISMN

The set of basic metadata shown in Table D.1 is given mainly for illustrative purposes.

Data element	Description					
ISMN	Assigned by the ISMN Registration Authority					
Product form	Coding which indicates the medium and/or format of the product					
Title	The title of the publication, together with sub-title(s) where applicable					
ISWC	The International Standard musical work code of the musical work content, when applicable					
Series title and enumeration	When applicable					
Contributor	Contributor role code(s) and contributor name(s)					
Edition	Edition number (for editions after the first), type, and statement					
Language(s) of text	If applicable, in accordance with ISO 639-2/B language codes					
Imprint	The brand name under which the publication is published					
Printed music format	The special music format of a work, distinguishing it from other formats of the same work (e. g. full score, score and set of parts)					
Publisher	The person or organization that owns the imprint at the date of publication					
Country of publication	If applicable, in accordance with ISO 3166-1 country codes					
Publication date	The date of the first publication under this ISMN, if applicable, in accordance with the ISO 8601 format (YYYY-MM-DD)					
Plate number	If applicable; especially when plate number constitutes a part of ISMN					
ISMN of parent publication	ISMN of the parent publication of which this publication is a part, if applicable					

Table D.1 — Set of basic metadata for an ISMN registration

Annex E

(normative)

Implementation guidelines for the 13-digit ISMN

When converting 10-digit format ISMNs to 13-digit format ISMNs, substitute the character "M" by the four-element ISMN prefix 979-0. There is no need to recalculate ISMNs because the check digit stays the same.

When the ISMN is presented in bar code form, the 13-digit ISMN is fully compatible with GS1 data structures such as the GS1 (formerly EAN.UCC) bar code.

Bibliography

- [1] ISO 639-2, Codes for the representation of names of languages Part 2: Alpha-3 code
- [2] ISO 2108, Information and documentation International standard book number (ISBN)
- [3] ISO 3166-1, Codes for the representation of names of countries and their subdivisions Part 1: Country codes
- [4] ISO 3297, Information and documentation International standard serial number (ISSN)
- [5] ISO 3901, Information and documentation International Standard Recording Code (ISRC)
- [6] ISO/IEC 7064, Information technology Security techniques Check character systems
- [7] ISO 8601, Data elements and interchange formats Information interchange Representation of dates and times
- [8] ISO 15706 (all parts), Information and documentation International Standard Audiovisual Number (ISAN)
- [9] ISO 15707, Information and documentation International Standard Musical Work Code (ISWC)
- [10] ISO 21047, Information and documentation International Standard Text Code (ISTC)
- [11] *ISMN Users' Manual*. Berlin, International ISMN Agency. Available online at <u>http://ismn-international.org/</u>

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Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

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Regional (Offices:			Telephones		
Central :	Manak Bhavan, 9 Ba NEW DELHI 110002	hadur Shah Zafar Marg		(2323 7617 (2323 3841		
Eastern :	1/14, C.I.T. Scheme KOLKATA 700054	VII M, V.I.P. Road, Kankurga		37 8499, 2337 8561 37 8626, 2337 9120		
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