ISAN User Guide

ISAN International Agency
26, rue de Saint Jean
CH-1203 Geneva
Switzerland
Tel.: + 41 22 545 10 00
Fax: + 41 22 545 10 40
Email: info@isan.org
www.isan.org

Version : 2.2, 27th of April 2005

This document is provided for information purposes by the ISAN International Agency. It does not correspond to any contractual engagement by the ISAN International Agency.
Table of contents

FOREWORD ................................................................................................................. 3

1  ISAN OVERVIEW .................................................................................................... 4

2  THE ISAN STRUCTURE ............................................................................................ 7

3  APPLYING ISAN TO AUDIOVISUAL WORKS ............................................................ 9

4  REGISTRATION FOR AN ISAN ............................................................................... 14

5  QUERYING AUDIOVISUAL WORKS AND/OR ISAN ..................................................... 17
   Public Readers ........................................................................................................ 18
   Registered Readers ................................................................................................ 18
   Registrants ............................................................................................................... 18

6  AFFIXING THE ISAN TO AN AV/WORK ................................................................. 19

ANNEX A: CALCULATION OF THE ISAN CHECK CHARACTER ..................................... 20

ANNEX B: DESCRIPTIVE INFORMATION FOR ISAN REGISTRATIONS ............................. 23

ANNEX C: GLOSSARY .................................................................................................... 34
Foreword

ISAN is a voluntary numbering system for identification of audiovisual works, developed within an ISO (International Organization for Standardization) working group (Technical Committee 46, Sub-Committee 9). The ISAN project was administered by AGICOA (Association of International Collective Management of Audiovisual Works), CISAC (International Confederation of Societies of Authors and Composers) and FIAPF (International Federation of Film Producers Associations), all three representing several international and national organizations involved with audiovisual productions.

The International Standard that forms the basis of the ISAN system was published in 2002 as ISO 15706, Information and documentation -- International Standard Audiovisual Number (ISAN), available in separate English and French editions, from national standards organizations that are members of the ISO. (www.iso.org)

The ISAN Part 2 (15706-2) document, Information and Documentation that forms the basis of the Version Identifier of an ISAN is still pending ISO approval. Updates can be found on ISO www.iso.org web site.

The ISAN website (www.isan.org) was launched in January 2004, and the ISAN System with its Central Repository was launched in June 2004.

The following documents are publicly available on the ISAN web site.

- "ISAN Registration Agency - Terms of Reference"
- “Expression Of Interest” to apply to become an ISAN Registration Agency
- “ISAN User Guide” (this document)
<table>
<thead>
<tr>
<th>Version</th>
<th>Description of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>Modified p. 9: work types SH, TF are now allowed to be in the serial form.</td>
</tr>
<tr>
<td>2.1</td>
<td>Started change tracking</td>
</tr>
</tbody>
</table>
1 ISAN Overview

ISAN stands for the “International Standard Audiovisual Number”. It is an entirely voluntary numbering system, and is not linked to any form of copyright registration. ISAN is the ISO 15706 international standard.

ISAN remains unchanged regardless of every stage of a work's distribution, including each new version.

ISAN relates to specific descriptive information (metadata) such as to the title, director, type, duration. This applies to all types of works, including versions of feature films, serials, documentaries, live broadcasts.

The ISAN identifier remains the same across formats, 35mm film, VHS, DVD, whether for broadcast or internet. ISAN is compatible with MPEG, DVB and ATSC standards.

ISAN can be incorporated in all physical media such as formats, publications, advertising, packaging, and on Contracts. The assigned ISAN to an AV/work remains the same, irrespective of any changes in ownership.

The uses of ISAN have been adapted to meet the different needs of the audiovisual industry. Its strength lies in its universal benefits.

ISAN can only be issued by appointed Registration Agencies via the ISAN System.

To enhance widespread use, ISAN operates through Registration Agencies, remaining adaptable to local industry needs.

The ISAN network is backed up by the International Agency, ISAN-IA, founded by AGICOA, CISAC and FIAPF.

ISAN has already been assigned to a large back stock of audiovisual works.

ISAN registration is online, whether for one or many works.

ISAN identifies works throughout their commercial life, across all versions, be they different languages, edits, formats, at all times and in all ways at all stages of distribution.

ISAN is for authors, broadcasters, collection societies, listing companies, producers, rights holders and many others.
ISAN Benefits

- The purpose of each ISAN is to act as a unique international identifier of each audiovisual work ("AV/work") linked to its descriptive information (metadata), hosted in a Central Repository.

- Each AV/work has one unique ISAN. Each ISAN identifies only one AV/work. ISAN is a permanent identifier for an AV/work and is never reused or changed.

- ISAN has been defined by the audiovisual industry.

- ISAN and its related descriptive information are accessible online at all times by users (Registrants and Readers).

- ISAN helps registrants of ISAN with efficient inventory management particularly in a digital environment.

- By requiring an ISAN to be listed in broadcast logs, tracking of uses is facilitated. In a fully digital environment, the ISAN is integrated into the work itself.

- When filing for administration through collective management, rights registration is facilitated through use of ISAN which brings important savings in time and cost. This enables quicker, more reliable and efficient rights distribution by the collection societies.

- ISAN facilitates electronic information exchanges between different external databases.

- ISAN helps better tracking of the use of a work in the digital world, thereby helping anti-piracy.

- ISAN can be used in the audiovisual e-commerce environment.
2 The ISAN Structure

Every ISAN, when presented in its written form, consists of:
- 16 hexadecimal digits (characters 0 to 9 and A to F) followed by an alphanumerical check character – the required root and episode;
- and a further optional 8 hexadecimal digits followed by an alphanumerical check character – the optional version extension.

* The version standard is pending final ISO approval
** Version numbers are not yet assigned at this stage

An ISAN is divided in three segments:
- the first 12 digits represent the root segment,
- the following 4 digits represent the episode/part of a serial work,
- the last 8 digits represent the version extension.
The seventeenth and the last digit of an ISAN are check characters which guard against errors resulting from improper transcription of an ISAN. These check characters are automatically assigned by a computer algorithm. *(The formula for calculating the check character is described in Annex A)*.

The first 16 digits representing the root and episode segments of an ISAN remain the same regardless of any versions of the work – only the last 8 digits change as versions are created for the work.

To assist in accurate transcription of an ISAN, the following rules apply:

- the word “ISAN” followed by a blank space shall precede all digits;
- the 16-digit ISAN shall be divided into 4 units of 4 digits with each unit separated by a space or hyphen, followed by the check character;
- then, the 8-digit version extension shall be divided into 2 units of 4 digits with each unit separated by a space or hyphen, followed by the check character;

These rules are intended solely to provide a visual aid for accurate transcription of ISAN; no meaning is attributed to any digits, units or characters.

When an ISAN is allocated to a work which is not an episode or part of a serial audiovisual work, the episode segment shall consist of 4 zeros (0000).

When an ISAN is allocated to an episode or a part of a serial audiovisual work, the episode segment is used to identify a registered episode in a serial. In this case an episode segment never consists of 4 zeros (0000).

A value of 0 (i.e. 0000-0000) shall not be assigned to the version segment of an ISAN when no version exists.

ISAN “version registrants” shall not assign any ISAN version segment where the first 4 bits are 1111 (i.e. hexadecimal value F). This range of ISAN version segment is reserved solely for internal applications (e.g. to track internal edits during the preparation of a version for public release) as determined by an ISAN “version registrant” who may self-assign such ISAN version segment on a non-registered basis. ISAN from this internally defined range shall not be distributed externally as they will automatically be interpreted as invalid for other applications.
3 Applying ISAN to audiovisual works

For the purposes of the system, ISAN defines an AV/Work as a “work consisting of a sequence of related images, with or without accompanying sound, which is intended to be made visible as a moving image through the use of devices, regardless of the medium of initial or subsequent fixation”. This is without prejudice to any legal definition of audiovisual works.

Most types of work can be registered as serial or non serial.

Most types of works will be usable in the early stage of ISAN implementation.

The types of AV/work to which ISAN can be assigned are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Definition</th>
<th>Can be used as “serial”?</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD</td>
<td>Commercials / Advertising film / Trailers</td>
<td>Works which promotes a product, service, idea, person or company, including promotional material for consumer products, services shown in theaters and infomercials. Also concerns trailers (promotional advertising for a film or television production).</td>
<td>Yes</td>
</tr>
<tr>
<td>FF</td>
<td>Feature Film</td>
<td>Work, usually originally released theatrically or direct to video</td>
<td>No</td>
</tr>
<tr>
<td>TF</td>
<td>TV movie or Telefilm</td>
<td>A work intended for television broadcast.</td>
<td>Yes*</td>
</tr>
<tr>
<td>DO</td>
<td>Documentary</td>
<td>A moving image production providing a factual archive or report depicting persons, animals, vegetables and plants, events or industrial processes.</td>
<td>Yes</td>
</tr>
<tr>
<td>ED</td>
<td>Educational</td>
<td>Works restricted to traditional training, coursework, classroom or distance learning. Such works are primarily intended to educate rather than entertain.</td>
<td>Yes</td>
</tr>
<tr>
<td>SE</td>
<td>Dramatic &amp; Comedy Series, Serials, “Soaps”</td>
<td>A set of fiction works often with the same main actors or on related subjects and open-ended television drama or comedy where the story continues from episode to episode.</td>
<td>Yes</td>
</tr>
<tr>
<td>SH</td>
<td>Short</td>
<td>Fiction work, usually originally released theatrically or direct to video, with an original length less than feature film. This includes short animated works.</td>
<td>Yes*</td>
</tr>
<tr>
<td>MM</td>
<td>Multimedia</td>
<td>Audiovisual work with interactivity.</td>
<td>Yes</td>
</tr>
<tr>
<td>NE</td>
<td>News</td>
<td>An audio visual production which reports on topics of current interest. Non fiction programming, reporting and commentary on current events, usually organized into reports from various correspondents.</td>
<td>Yes</td>
</tr>
<tr>
<td>Type</td>
<td>Category</td>
<td>Description</td>
<td>ISAN?</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>LV</td>
<td>Live event</td>
<td>All non fiction works recording live events except related to sport or performances which have their own types. Examples include extensive coverage of political conventions, talk shows, live recordings of political debates, elections, space coverage, marriage, funerals, etc…</td>
<td>Yes</td>
</tr>
<tr>
<td>PF</td>
<td>Performance</td>
<td>Works documenting a performance including concerts, dance, music, opera, stage production, recitation, magic, circus, stand-up comedy, burlesque, vaudeville or other variety stage act. Performance is a subset of live event (LV).</td>
<td>Yes</td>
</tr>
<tr>
<td>SP</td>
<td>Sporting Event, Sports Related Program</td>
<td>Non fiction productions reporting on sporting events. Sport is a subset of live event (LV).</td>
<td>Yes</td>
</tr>
<tr>
<td>TE</td>
<td>Other Television entertainment</td>
<td>Programming intended for airing on television including reality programs, magazines, variety, game shows, except where otherwise categorized.</td>
<td>Yes</td>
</tr>
<tr>
<td>VC</td>
<td>Music video clip</td>
<td>Short audiovisual non live production which shows images related to a specific sound recording.</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* changed since version 2.2 of this User Guide

The types of works that shall NOT be assigned an ISAN are:

- audio recordings;
- soundtracks;
- music cue sheets;
- screenplays;
- storyboards;
- single images from an audiovisual work;
- still photographs;
- out-takes;
- any other non-audiovisual element associated with an audiovisual work.

Any other work which does not correspond to the ISAN definition cannot be assigned an ISAN.

When do we use the version extension of an ISAN?
When identifying a specific version of work, the version extension of an ISAN is used, as the first 16 digits of an ISAN identifies the work as a whole and does not identify any specific version of a work.

What differentiates a version from the other?
The rule of thumb is simple enough. If there exist two tapes and it matters which one is put on the air, there must be a separate version extension identifier for each tape.

Some examples of changes to works resulting in new versions of audiovisual works to which an ISAN version extension identifier may be issued are:

- changes to a specific language track or the arrangement of language tracks;
- changes to the subtitling;
- changes in specific image or sound formats, such as:
  - wide screen vs. "pan & scan";
  - standard definition vs. high definition;
  - “high quality” to “low quality” (e.g., D1 tape to VHS tape transfer)
  - change from AC3 to MP4 sound encoding
- editing of an audiovisual work for a specific purpose, such as:
  - edits for length
  - edits to alter commercial placement
  - edits for content advisory reasons
  - a change in the technical data stream that affects the content of the work (e.g. a different software program to generate background images or the vertical blanking interval for closed captioning).

What types of changes do not constitute a new version of a work?

Some examples of changes related to works that do not qualify for an ISAN or a version extension registration purposes and for which an ISAN and/or a version extension identifier shall not be issued are:

- a change in the rights or ownership of an audiovisual work;
- a change in the metadata describing the work;
- a change in recording medium (e.g., a tape-to-tape copy);
- a change in the price or fees associated with use of an audiovisual work.

The modification of an AV/work may only be considered as a new work justifying the delivery of a new ISAN if the changes are significant.

The following changes are considered to be significant enough to justify the issuance of a new ISAN:

- a director’s cut;
- a substantially abridged and re-edited version;
- a sequel (e.g. The Godfather, Part II)
- a "colorized" version of an audiovisual work that was originally created in black and white, or a "black and white" version of an audiovisual work that was originally created in color;
- other significantly re-edited versions of an audiovisual work.

The following examples will NOT be considered as a new AV/work eligible for a new ISAN, but may get an ISAN version extension. In such cases, the ISAN assigned to the registered AV/work must be used in its full structure (i.e. the 24 digits)

- versions created by dubbing the audio track in one or more languages;
- subtitled versions;
- a digitized version of a work originally in analogue format, providing that there have been no significant changes to the content of the original work;
- changes in the physical carrier(s) for an AV/work;
- minor changes to the format and/or duration of an AV/work (e.g. for television broadcast, for use on airlines or similar changes for the requirements of a specific exploitation).

Serial AV/Work

For the purposes of the ISAN system, serial audiovisual works and episodes are defined in a broad sense.

Consequently, no apparent sequential allocations in the episode segment shall imply the order in which episodes were produced or transmitted.

A serial audiovisual work is produced in individual episodes or parts which bear a relationship to each other. There is usually a common title for the whole series.

Examples of serial audiovisual works are:

- any television series, regardless of genre, produced in episodes that are intended for broadcast at intervals;
- a daily/weekly talk show, newscast, sports event, etc…;
- daily or regular news broadcasts;

These are NOT serial audiovisual works:

- a sequel to a feature film (e.g. “Rocky IV”);
- separate broadcasts of parts of a single AV/work;
- an annual telecast of a yearly event (e.g. a New Year’s Eve special or the annual Academy Awards presentation).
Registering individual episodes of a serial AV/Work

Each episode within a series or other serial AV/work should have its own ISAN as no single ISAN will be assigned to cover a series in its entirety.

When registering the first episode of a serial, the title for the serial must be provided. A first reference episode is created with all the descriptive information.

Each time a Registrant wants to add a new episode in the serial, he/she selects the title of the serial for which all descriptive information will be initialized with the values from the most recently registered episode. This eases the registration process as only differences need to be provided; e.g. title of the episode, new actors, etc…

When a new episode is registered for an ISAN, it is only checked against duplicate(s) in the serial itself.

Descriptive information defined in Annex B for a serial are the same as for other types of AV/work.

Composite works and their component parts

A composite work is an audiovisual work which contains other complete AV/works or excerpts from AV/works, each of which is insubstantial in relation to the entire composite work.

A composite AV/Work has its own ISAN, independent of any ISAN that may have been issued for its component parts.

Examples of composite works are:

- a feature film which contains parts of animated cartoons or other film clips;
- a television program that contains footage from previously produced feature films;
- a television episode that contains footage from episodes of other television series.

These types of works are NOT composite works:

- a specific scene within a feature film, unless that scene is intended for distribution as a separate work;
- a montage of single images.

For a composite work, Registrant is asked to supply the available ISAN of each AV/Work composing this composite work.
4 Registration for an ISAN

How to apply to become an ISAN Registrant

Applicants wishing to be an ISAN Registrant must apply to a Registration Agency and they must be the producer or an authorized proxy of the producer (such as a sales agent and/or distributor) or other appropriate entity or individual, subject to recognition and qualification by an ISAN Registration Agency. Each Registrant applicant will be asked to sign a commitment to apply for ISAN only for those audiovisual works for which he/she guarantees the accuracy of all descriptive information. The above conditions may not apply to those applicants wishing to register ISAN version extensions.

A current list of ISAN Registration Agencies can be found on the ISAN International Agency website (www.isan.org).

The registrant one-time registration process requires applicants to provide accurate and verifiable information including documentation of industry affiliation such as:

- Current membership with an audiovisual trade association recognized by the RA
- Sponsorship of the applicant by a trade association recognized by the RA
Verifiable declaration of appropriate past or current activity in the audiovisual industry (e.g. funding by a public agency recognized by the RA).

Once Registrant status has been obtained, Registrants may apply for ISAN services online via their affiliated RA:

- ISAN registration
- ISAN queries
- In-development ISAN

Please note the following points:

- A Registration Agency cannot be an Authorized Registrant.
- A Registrant may only be accredited at a single Registration Agency at any one time. A Registrant is authorized to change Registration Agency.
- A Registrant can be a legal entity or an individual.
- Registrant status is not transferable from one person or company to another.
- A Registrant may be revoked or suspended by a Registration Agency for significant breach of ISAN set of rules.
- Refused applicants and revoked or suspended Registrants may appeal to the ISAN International Agency which will review such appeal with the Registration Agency in a timely manner.
- Readers (any entity or individual with a need to query ISAN and its related descriptive information) status can be obtained similarly (with less stringent conditions) as for Registrants from any appointed Registration Agency.

How and when to apply for an ISAN

Ideally application for ISAN should be made early in the production process of an AV/work. However, Registrants may apply for an ISAN at any time during or after production provided that required ISAN registration descriptive information is known, not expected to change and that an ISAN has not already been assigned to the AV/work concerned.

When applying for an ISAN, a Registrant will be asked - after login to the ISAN System application - to enter the required descriptive information about the specific work for which he/she wishes to obtain an ISAN. This descriptive information is described in Annex B.

Descriptive information about an AV/Work and its associated ISAN will be added to the ISAN System Central Repository, creating a permanent record and identifier of such audiovisual work.
The ISAN System will deliver to Registrant the relevant ISAN almost instantaneously. Delays may occur when potential duplicate(s) are detected in the ISAN System Central Repository. In such case, duplication resolution will be performed by either the Registrant or the RA.

Avoiding the creation of duplicates is key during the registration process.

Applying ISAN to “back stock” of works

Back stock shall be considered as those Registrants AV/work for which year of reference (production year) is prior to establishment of its RA. For example, an applicant becoming a Registrant in March 2005 with an RA established in January 2005 shall be entitled to have all its related AV/works produced by the end of 2004 to be considered as back stock.

Different fees may apply for allocating ISANs to a back stock of audiovisual works in order to promote ISAN in its early stages.
Application for an “in-development ISAN”

In order to allow a Registrant to consider an ISAN at an early stage of the production process, application may be made for an “In-Development ISAN”. This may also be appropriate during production of audiovisual news bulletins or broadcaster’s high rate of program production.

An “In-Development ISAN” can be assigned to an incomplete AV/work without the need to provide full descriptive information but this must be provided as soon as available in order to be confirmed as an ISAN.

Registrant must be aware that an “In-Development ISAN” is not an ISAN as specified in the Standard and may not be used as such. The distribution of a work carrying an ISAN still registered as “In-Development” will be considered as a breach of ISAN rules.

A reminder to provide required descriptive information is issued 6 (six) months after the issuance of the “In-Development ISAN”.

Any database query against an “In-development ISAN” shall only confirm such status. Any descriptive information provided for an “In-development ISAN” will not to be made available for query until activation of the ISAN.

On the initiative and provision of the required descriptive information by the Registrant, provided that no potential duplicate AV/work is detected, the status of “in-development ISAN” will be amended to an ISAN.

5 Querying Audiovisual Works and/or ISAN

The ISAN System Central Repository database is an identification database enabling identification of audiovisual works descriptive information and their related ISAN.

Three types of users can query the system:

- Public Readers
- Registered Reader
- Registrants
PUBLIC READERS

Anyone seeking ISAN from original titles of registered AV Works can query the ISAN System from ISAN web site free of charge www.isan.org.

The Public Reader can make two types of queries:

- By querying an ISAN, the system responds with the original title.
- By querying an original title the system responds with the ISAN(s) (if issued), with a limit of five (5) results.

REGISTERED READERS

A registered Reader is any legal entity or individual registered as such at an ISAN Registration Agency. To become a Reader, an applicant shall only register with an ISAN Registration Agency first – there is no requirements in term of audiovisual industry involvement.

Registered Readers have to pay usage fees to query the system.

A registered Reader can make two kinds of queries:

- By providing an ISAN the Reader accesses descriptive information for a work.
- By providing some or all descriptive information, the Reader is offered the corresponding ISAN for the work concerned. If insufficient information is provided or if the number of potential corresponding works is too high, the Reader is asked to refine his/her query.

A Reader can query on-line through the web site of its Registration Agency. For a mass query process, a request can be submitted to the Registration Agency who will reply in an XML format.

Any XML formats will be available to registered Readers through their Registration Agency.

REGISTRANTS

Registrants can register AV Works to get ISAN, but can also query the ISAN System. Registrant’s queries can be made within Registrant's own catalog of identified works with assigned ISANs, or outside its own catalog.

Query functionalities for Registered Readers apply to Registrants.
6 **Affixing the ISAN to an AV/work**

The ISAN should be permanently affixed to the master material of the AV/Work so that it shall be persistent throughout the life of each such AV/Work.

For works in digital formats, the ISAN could be encoded in the work itself. The ISAN International Agency will offer advice to RAs and users on where the ISAN could be encoded for works in various kinds of formats.

For works in analog formats, it is recommended that the ISAN should be:

- affixed to master copies of the AV/work or permanently linked to that work in the records of the institutions that hold master copies
- made visible in the main and/or end credits of the AV/Work.

It is also recommended that the ISAN should be included in all technical documentation distributed with each AV/Work.

When the ISAN is printed or otherwise displayed, whether on an AV/work, on labels, technical documentation, and packaging or elsewhere, it must be preceded by the letters "ISAN" to clearly distinguish it from any other product numbers. Even when used with non-Roman scripts, the letters "ISAN" must appear in the Latin alphabet.

To assist in accurate transcription of an ISAN, the following rules apply:

- the word "ISAN" followed by a blank space shall precede all digits;
- the 16-digit ISAN shall be divided into 4 units of 4 digits with each unit separated by a space or hyphen, followed by the check character;
- then, the 8-digit version extension shall be divided into 2 units of 4 digits with each unit separated by a space or hyphen, followed by the check character;

These rules are intended solely to provide a visual aid for accurate transcription of ISAN; no meaning is attributed to any digits, units or characters.

See section 2 – The ISAN Structure, of current document for more details.
Annex A: Calculation of the ISAN Check Character

The following is a simplified description of the procedure for calculating the ISAN check character, using, as an example: ISAN B159-D8FA-0124-0000-K

To verify the correctness of ISAN, convert the ISAN from hexadecimal to decimal values.

Here is the decimal representation:

| ISAN | B | 1 | 5 | 9 | - | D | 8 | F | A | - | 0 | 1 | 2 | 4 | - | 0 | 0 | 0 | 0 | - | K |
| ISAN | 11| 1 | 5 | 9 | - | 13| 8 | 15| 10| - | 0 | 1 | 2 | 4 | - | 0 | 0 | 0 | 0 | - | 20|

**Step 1:** Take the first digit of the 16 digit ISAN character string and add it to 36. The sum of this addition will be the Intermediate Sum used in the next step.

**Step 2** Take the Intermediate Sum and adjust it as follows:

- if the Intermediate sum is greater than or equal to 36, subtract 36 from it to create the Adjusted Intermediate Sum;
- if the Intermediate Sum is less than 36, use it without change as the Adjusted Intermediate Sum.

If the Adjusted Intermediate result equals zero (after these two previous steps) use 36.

**Step 3** Take the Adjusted Intermediate Sum and multiply it by 2 to arrive at a Product.

**Step 4** Take the Product created in Step 3 and adjust it as follows:

- if the Product is greater than or equal to 37, subtract 37 from it. The remainder will be the Adjusted Product.
- if the Product is less than 37, use it without change as the Adjusted Product.

**Step 5** Carry forward the Adjusted Product to the next step.

**Step 6** Take the next digit (reading from left to right) of the 16 digit ISAN character string and add it to the Adjusted Product carried forward from the previous step. Repeat the steps outlined from C.2 through C.6 until all 16 digits of the ISAN have been processed and the Adjusted Product for the 16th digit has been determined.
**Step 7**  If the Adjusted Product for the 16th digit of the ISAN equals 1, use 0 for the check character. Otherwise, take the Adjusted Product for the 16th digit and subtract it from 37.

The remainder will be the check character for that ISAN.

**Check Character for the Version segment**

The check character for a the Version segment of an ISAN shall be one alphanumeric character using Arabic numerals 0 through 9 and letters A through Z of the Latin alphabet. The check character for an ISAN as a whole (the 24 digits) shall be calculated over the 16 hexadecimal digits of its ISAN elements and the 8 hexadecimal digits of its version segment according to the MOD 37, 36 system specified in accordance with ISO 7064.

Whenever an ISAN with its version extension is displayed in human-readable form its correct check character shall be added as the 26th character at the end of the ISAN with the version segment string. Note that the ISAN check character after the first 16 hexadecimal digits shall also be present in such cases, so the resulting string of 26 characters incorporates two check characters: one as the 17th character and one as the 26th character.

Validation of an ISAN with its Version segment being entered into or retrieved from a database or other machine-readable format by a human shall require both correct check characters (for the ISAN root element and for the version segment character string) to be verified or presented.
**Figure 1 - Procedure for calculating the ISAN check character**

The table below shows the steps in calculating the check character for the ISAN:

<table>
<thead>
<tr>
<th>Step</th>
<th>ISAN digits (processed from left to right)</th>
<th>Add (+) (Use 36 for the first step; for subsequent steps, use the Adjusted Product from the previous step)</th>
<th>Intermediate Sum</th>
<th>Adjusted Intermediate Sum (If Intermediate Sum was greater or equal to 36, adjust by subtracting 36. If adjusted sum equals zero, put 36)</th>
<th>x 2</th>
<th>Product (If the Product was greater or equal to 37, adjust by subtracting 37)</th>
<th>Adjusted Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>11</td>
<td>+ 36</td>
<td>= 47</td>
<td>11</td>
<td>x 2</td>
<td>= 22</td>
<td>22</td>
</tr>
<tr>
<td>2.</td>
<td>1</td>
<td>+ 22</td>
<td>= 23</td>
<td>23</td>
<td>x 2</td>
<td>= 46</td>
<td>9</td>
</tr>
<tr>
<td>3.</td>
<td>5</td>
<td>+ 9</td>
<td>= 14</td>
<td>14</td>
<td>x 2</td>
<td>= 28</td>
<td>28</td>
</tr>
<tr>
<td>4.</td>
<td>9</td>
<td>+ 28</td>
<td>= 37</td>
<td>1</td>
<td>x 2</td>
<td>= 2</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>13</td>
<td>+ 2</td>
<td>= 15</td>
<td>15</td>
<td>x 2</td>
<td>= 30</td>
<td>30</td>
</tr>
<tr>
<td>6.</td>
<td>8</td>
<td>+ 30</td>
<td>= 38</td>
<td>2</td>
<td>x 2</td>
<td>= 4</td>
<td>4</td>
</tr>
<tr>
<td>7.</td>
<td>15</td>
<td>+ 4</td>
<td>= 19</td>
<td>19</td>
<td>x 2</td>
<td>= 38</td>
<td>1</td>
</tr>
<tr>
<td>8.</td>
<td>10</td>
<td>+ 1</td>
<td>= 11</td>
<td>11</td>
<td>x 2</td>
<td>= 22</td>
<td>22</td>
</tr>
<tr>
<td>9.</td>
<td>0</td>
<td>+ 22</td>
<td>= 22</td>
<td>22</td>
<td>x 2</td>
<td>= 44</td>
<td>7</td>
</tr>
<tr>
<td>10.</td>
<td>1</td>
<td>+ 7</td>
<td>= 8</td>
<td>8</td>
<td>x 2</td>
<td>= 16</td>
<td>16</td>
</tr>
<tr>
<td>11.</td>
<td>2</td>
<td>+ 16</td>
<td>= 18</td>
<td>18</td>
<td>x 2</td>
<td>= 36</td>
<td>36</td>
</tr>
<tr>
<td>12.</td>
<td>4</td>
<td>+ 36</td>
<td>= 40</td>
<td>4</td>
<td>x 2</td>
<td>= 8</td>
<td>8</td>
</tr>
<tr>
<td>13.</td>
<td>0</td>
<td>+ 8</td>
<td>= 8</td>
<td>8</td>
<td>x 2</td>
<td>= 16</td>
<td>16</td>
</tr>
<tr>
<td>14.</td>
<td>0</td>
<td>+ 16</td>
<td>= 16</td>
<td>16</td>
<td>x 2</td>
<td>= 32</td>
<td>32</td>
</tr>
<tr>
<td>15.</td>
<td>0</td>
<td>+ 32</td>
<td>= 32</td>
<td>32</td>
<td>x 2</td>
<td>= 64</td>
<td>27</td>
</tr>
<tr>
<td>16.</td>
<td>0</td>
<td>+ 27</td>
<td>= 27</td>
<td>27</td>
<td>x 2</td>
<td>= 54</td>
<td>17</td>
</tr>
<tr>
<td>17.</td>
<td>37 minus 17 = 20 (20-&gt;K)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Therefore the 16 digit ISAN character string **ISAN B159-D8FA-0124-0000** has the check character **K** and the complete 17 digit ISAN is **ISAN B159-D8FA-0124-0000-K**.
Annex B: Descriptive information for ISAN registrations

B1. GENERAL RULES FOR DESCRIPTIVE INFORMATION QUALITY

In order to maintain quality and consistency of descriptive data, the following rules should be followed when completing applications for assignment of ISAN (root and episode only):

A Title should be formatted in mixed case (e.g. not UPPERCASE only), conforming with the style as it appears on the audiovisual work (including correct use of any numbers, without abbreviations, etc.).

Titles shall not be written with the particle at the end: “Godfather, the” is not correct.

Language(s) information should be consistent between the language code and title(s) listed.

Names (participants and companies) should be completed in mixed case (e.g. not UPPERCASE only), completed in full (without abbreviation), including any prefix or suffix. In the case where a middle name is found, it should be written in the First Name field.

No Last Name can be accepted with only one (1) letter.

“None” or similar misleading information cannot be considered as a valid entry.

Production Companies shall be the company(ies) that originally created the work. The following companies should not be listed instead: distributor(s), right owner(s), group(s). And in case of acquisitions or bankruptcy, only the original company shall be listed.

Duration listed should conform to approximate running time as used for original release.

B2. DESCRIPTIVE DATA FOR AUDIOVISUAL WORKS

Of the following descriptive data, fields marked with an asterisk (*) on the ISAN Application Form are mandatory. All other fields are optional.

Required data on serial episodes is similar as they do not differ fundamentally from other types of audiovisual work.

Descriptive data listed below does not cover ISAN Version segment registration information.
1 - CORE DATA

General Information:

- **Type (*)**
  - Specify the type of work, using the categories described in this User Guide (Chapter 3). For example: feature film; series; commercial; recording of a live event etc.

- **Kind (*)**
  - Specify whether the work is:
    - a combination of animation and live action
    - live action
    - animated

- **Year of reference (*)**
  - The year of reference should preferably be any year that is listed on the work itself (e.g. the year that appears in conjunction with any copyright statement in credits on the work).
  - Convert dates in Roman numerals to Arabic numerals (e.g. MCMXCIX should be transcribed as 1999).
- **Year of 1st publication**
  - The year in which the work was first released to the public. (Do not use the date of any pre-screenings to test audiences).

- **Duration (*)**
  - Specify the approximate duration in minutes as first released.
  - If the duration is not known at the time of initial application, it should be supplied as soon as possible thereafter.
  - Duration is not required when registering non-linear (e.g. interactive) audiovisual works.

- **Composite (*)**
  Supply the title and ISAN of each component part, if applicable and available.

- **Color**
  Enter if original work filmed in full color or black and white or a combination of color and black and white

- **Silent**
  Enter if original work filmed with or without sound.

**Production Information:**

- **Co-production**
  Indicate whether or not the work is a co-production.

- **Production Companies**
  - Give the name of the main production company in the same form as appearing in the credits on the work.
  - If the applicant is unsure whether to use the name of an individual or a company, the name of a company is preferable.

- **Production Countries**
  Specify whether any listed country is to be considered as the country of production (i.e. where the main production company’s headquarters are situated) or the location of principal shooting.

- **Original language (*)**
specify the original spoken language of the work.
- record “None” for silent films.
- if a work contains separate audio tracks for more than one language, specify the language code for each audio track.

2 - Titles

<table>
<thead>
<tr>
<th>Original</th>
<th>Language</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Original (*)**
  - Specify whether this is the Original language title of the work or not.

- **Language (*)**
  - Specify the Original title of the work in the original language using the categories represented by the ISO 639-2 language codes.

- **Title (*)**
  - Give the title in the same form as appearing on the work.
  - If the title appears in more than one form in the work, give preference to the form that is given most prominence in the opening sequence of the work.

- **Alternate title(s) in the original language, if applicable (*)**
  - Give any alternate title(s) in the same form as appearing on the work.

- **Other language(s)**
  - Specify any other language code in which the work is known to have been distributed.
Alternate title in other language(s)

- Specify the title(s) used in any other language in which the work is known to have been distributed.

3 - PARTICIPANTS

- Type (Director) (*)
  - Give the full name of the principal director, including Last name and First name if known and applicable.

- Type (Actor) (*) if applicable and available
  - Supply a minimum of 3 principal cast members with their full name to include Last name and First name, if applicable and available. If necessary, the names of the principal characters may be supplied in lieu of the names of the principal cast members.

- Type (all other) if known and available
  - Provide the name(s) of the script writer(s) and producers in the same form as appearing in credits on the work. These include:
    - Producer
    - Screenwriter
    - Character
    - Composer
    - Scriptwriter
B.3 DESCRIPTIVE DATA FOR EPISODES WITHIN A SERIES OR OTHER SERIAL AUDIOVISUAL WORK

Descriptive data required for episodes is essentially the same as for other audiovisual works. In order to simplify the registration process of each new episode in the same series, these are grouped under a common Episode Header by clicking on IS Episode (see below).

In order to add a new Serial Header, the following descriptive information must be entered:
- **Original (*)**
  - Specify whether this is the Original language title of the entire serial audiovisual work.

- **Language (*)**
  - Specify the Original title of the entire serial audiovisual work in the original language using the categories represented by the ISO 639-2 language codes.

- **Title (*)**
  - Give the title of the entire serial audiovisual work (if any) using the form in which it appears in the work.

- **Alternate title(s) in the original language, if applicable (*)**
  - Give any alternate title(s) in the same form as appearing on the entire serial audiovisual work.

- **Other language(s)**
  - Specify any other language code in which the entire serial audiovisual work is known to have been distributed.

- **Alternate title in other language(s)**
  - Specify the title(s) used in any other language in which the entire serial audiovisual work is known to have been distributed.

Once the Serial Header has been selected or created, the following descriptive information must be entered.
1. **CORE DATA**

### General Information:

- **Is Episode From:** (*
  - The System will automatically show the Title of the entire serial audiovisual work from the selected Serial Header (which has been created using the form in which it appears in the work).

- **Episode Number** (* Required if applicable
  - Specify the episode number; if the episode has no number, the episode title must be supplied under 2- Titles.

- **Type** (*
  - Specify the type of work. For example: advertisement, series.

- **Kind** (*
  - Specify whether the work is:
    - a combination of animation and live action
    - live action
    - animated
- **Year of reference (*)**
  - The year of reference should preferably be any year that is listed on the episode itself (e.g. the year that appears in conjunction with any copyright statement in credits on the work).
  - Convert dates in Roman numerals to Arabic numerals (e.g. MCMXCIX should be transcribed as 1999).

- **Year of 1st publication**
  - The year in which the episode was first released to the public. (Do not use the date of any pre-screenings to test audiences or of the original recording of the episode in front of a live audience).

- **Duration (*)**
  - Specify the approximate duration in minutes as first released.
  - If the duration is not known at the time of initial application, it should be supplied as soon as possible thereafter.
  - Duration is not required when registering non-linear (e.g. interactive) audiovisual works.

- **Composite (*)**
  - Supply the title and ISAN of each component part, if applicable and available.

- **Color**
  - Enter if original episode filmed in full color or black and white or a combination of color and black and white

- **Silent**
  - Enter if original episode filmed with or without sound.

**Production Information:**

- **Co-production**
  - Indicate whether or not the series is a co-production.

- **Production Companies**
  - Give the name of the main production company in the same form as appearing in the credits on the work.
  - If the applicant is unsure whether to use the name of an individual or a company, the name of a company is preferable.
- **Production Countries**
  Specify whether any listed country is to be considered as the country of production (i.e. where the main production company's headquarters are situated) or the location of principal shooting.

- **Original language (*)**
  - Specify the original spoken language of the work.
  - Record "None" for silent films.
  - If a work contains separate audio tracks for more than one language, specify the language code for each audio track.

**2 - TITLES**

- **Original (*)**
  Specify whether this is the Original language title of the episode.

- **Language (*)**
  Specify the Original title of the episode in the original language using the categories represented by the ISO 639-2 language codes.

- **Title (*)**
  - Give the title (if any) in the same form as appearing on the episode.
  - Give the episode number (if any) if available.
  - Where both a title and episode number has been used, give both.

- **Alternate title(s) in the original language, if applicable (*)**
- Give any alternate title(s) in the same form as appearing on the episode.

- **Other language (s)**
  - Specify any other language code in which the episode is known to have been distributed.

- **Alternate title in other language (s)**
  - Specify the title(s) used in any other language in which the episode is known to have been distributed.

3 - PARTICIPANTS

<table>
<thead>
<tr>
<th>Type</th>
<th>First name</th>
<th>Last name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Type (Director) (*)**
  - Give the full name of the principal director of episode, including Last name and First name if known and applicable.

- **Type (Actor) (*) if applicable and available**
  - Supply a minimum of 3 principal cast members with their full name to include Last name and First name, if applicable and available. If necessary, the names of the principal characters may be supplied in lieu of the names of the principal cast members.

- **Type (all other) if known and available**
  - Provide the name(s) of the script writer(s) and producers in the same form as appearing in credits on the work. These include:
    - Producer
    - Screenwriter
    - Character
    - Composer
    - Scriptwriter
    - Anchor
    - Distributor
Annex C: Glossary

- **Audiovisual Work (AV/work)**
  Work consisting of a sequence of related images, with or without accompanying sound, which is intended to be made visible as a moving image through the use of devices, regardless of the medium of initial or subsequent fixation.

- **Composite audiovisual work**
  Audiovisual work which contains one or more other audiovisual works or parts of audiovisual works, each of which is insubstantial in relation to the entire composite audiovisual work.

  **EXAMPLES:** A feature film which contains parts of animated cartoons or other film clips; a television program that contains footage from previously produced feature films, from episodes of television series, or from other audiovisual works.

- **eXtended Markup Language (XML)**
  eXtensible Markup Language. A widely used standard from the World Wide Web Consortium (W3C) that facilitates the interchange of data between computer applications. XML is similar to the language used for Web pages, the HyperText Markup Language (HTML), in that both use markup codes (tags). Computer programs can automatically extract data from an XML document, using its associated DTD as a guide.

- **Registrant**
  Producer of an audiovisual work, authorized proxy of such a producer, or other such entity or individual, registered within the ISAN system for the purposes of obtaining an ISAN for audiovisual works.

- **Registration Agency**
  Agency appointed by the ISAN International Agency for the purposes of assigning ISAN to registrants.

- **Reader**
  Every person or legal entity interested in querying the ISAN database for identification of audiovisual works.

- **Serial audiovisual work**
  Audiovisual work produced in individual episodes or parts which bear a relationship to each other and (usually) a common title for the whole series.