

EBU – TECH 3279



# International Broadcast Tape Number (IBTN) Bar-code labels and register of Facilities Codes and Media Carriers

**Technical Specification**

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## International Broadcast Tape Number (IBTN) Bar-code labels & Register of Facilities Codes and Media Carriers

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### Introduction

For some years, a number of television broadcasting organisations have been using bar-code scanning technology on broadcast tapes held in their libraries. Each system has been designed for the benefit of the individual broadcaster and they have not necessarily been adaptable for use by other broadcasters or production facilities. As a technology, bar-codes have proved to be a useful tool, but the applications have lacked any form of standardisation.

The EBU established an Ad-hoc Group mandated to research and develop a tape identification and labelling scheme suitable for use on the widest scale. The International Broadcast Tape Number (IBTN) scheme and the associated bar-code label specification given in the present document is the outcome of this study.

The IBTN scheme can be applied to any broadcast tape and related items and enables these to be uniquely identified, from the earliest stages of the production process. The bar-code representation of the IBTN allows broadcast tapes to be scanned as they move from production facilities to broadcasters and during transfers between broadcasters.

Use of the IBTN and associated bar-code labels will improve efficiency and provide traceability of broadcast programme supports in all sectors of the industry, not just in individual countries but throughout the European Broadcasting Area.

*Note: Appendices 1, 2 and 3 respectively list ISO-2 country codes of EBU Members, Facility Codes and Codes for broadcast tapes, films and related items. For convenience, these Appendices form the EBU register of these codes. Appendix 5 is the application form for a new Facility Code.*

### Scope

This EBU Technical Document specifies the International Broadcast Tape Number scheme and the associated bar-code label format. It sets out the requirements for:

- the structure of the International Broadcast Tape Number;
- the representation of the IBTN as a bar-code label to be affixed to broadcast tapes, films

and related materials.

It is intended that the IBTN should be created as early as possible in the tape life-cycle and the bar-code applied at this early stage to enable the IBTN to be exploited throughout the programme production process.

The IBTN has a structure that enables many pre-established bar-code systems to be converted to the IBTN. This is an important consideration that enables broadcasters to retain their established library databases and procedures.

The present IBTN specification is applicable to the identification and labelling of:

- broadcast videotape of all formats;
- film negatives, prints and sound-tracks as used by television broadcasters;
- other media related to programme production, including audio tapes and cassettes, computer media (e.g. floppy disks, optical disks) carrying programme-related data, and viewing copies.

The IBTN system has been designed from the outset to be applicable in all countries. The EBU has adopted the IBTN scheme for application throughout the European Broadcasting Area<sup>1</sup> [1]. Other regional broadcast bodies may decide to adopt the IBTN system, but until this happens, the system should not be extended beyond Europe.

## 1. IBTN data structure

### 1.1 *Constituent elements of the International Broadcast Tape Number*

The constituent elements of the IBTN are as follows.

#### 1.1.1 Country code

The IBTN country code identifies the country in which is situated the broadcasting organisation or production facility which issues the IBTN. The Code shall be equivalent to the two alphabetic character country code defined in ISO 3166-1 alpha-2 (the "ISO-2" code) [2].

A list of the country codes relevant to the European Broadcasting Area is given in Appendix 1.

#### 1.1.2 Facility code

The facility code identifies the broadcasting organisation or other production facility that issues the IBTN.<sup>2</sup>

The facility code shall be a three-character code consisting of uppercase alphabetic or numeric characters (i.e.: A-Z, 0-9) in any acceptable combination.

*Note: Facility codes are only unique within the geographical area covered by the associated country code.*

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<sup>1</sup> The countries in the European Broadcasting Area are listed in Appendix 1

<sup>2</sup> The terms "broadcaster", "facility" etc. are defined in the Glossary.

### 1.1.3 Tape identification code

The tape identification code is a sequence of characters providing a unique identification to each individual tape, cassette, film spool or other programme support within a broadcasting organization or other production facility.

The tape identification shall be a code up to nine characters long assigned by the facility identified in § 1.1.2. Any printable character defined in § 1.6 may be used.

*Note: The tape identification code has been specified in such a manner as to enable broadcasters and facilities to preserve pre-existing internally-assigned codes, subject to the constraint that the code shall be no longer than nine characters. A pre-existing internal code becomes unique in the international domain by the addition of the facility code and the country code.*

## 1.2 Tape attributes

Two optional "tape attribute" elements may be added to the IBTN.

### 1.2.1 Tape format code

The tape format code indicates the principal technical characteristics of the recording medium (e.g. tape recording format and cassette size, film gauge, hard/flash disk size).

The tape format shall be a three-character code consisting of uppercase alphabetic or numeric characters (i.e.: A-Z, 0-9), in any acceptable combination.

### 1.2.2 Maximum duration of tape

The tape duration code shall indicate the maximum duration of the tape in minutes, represented as a sequence of three numeric characters (000 - 999).

Although this element of the IBTN system could be used to give the exact playing time of the tape, to the nearest minute, it is not intended that it should be used in this way. The field is optional, and it is primarily intended to be of benefit to the original user. The objective is simply to avoid users under-estimating the duration of the tape.

## 1.3 Structure of the IBTN

The structure and sequence of the IBTN shall be as defined in Table 1.

Table 1: Structure of the IBTN and optional tape attribute codes.

Description of data element	Required	Data type	Data length	Permitted characters
IBTN				
ISO country code	Yes	Fixed	2	Upper-case A-Z
Facility code	Yes	Fixed	3	Upper-case A-Z and/or 0-9
Tape identification code	Yes	Variable	maximum 9	Any printable character (see § 4.9.)
Tape attributes				
Tape format code	Optional	Fixed	3	Upper-case A-Z and/or 0-9
Tape duration	Optional	Fixed	3	Numeric

*Notes:*

1. *The space character shall not be used in the facility code, tape format code, or tape duration, because of the risk that a shortened data stream (caused by ignoring a legitimate space) could corrupt the data structure.*
2. *The optional elements shall be included at the discretion of the original provider of the IBTN. Users of subsequent bar-code scanning systems may also set their systems to discard this information if it is not required.*
3. *Tape duration shall only be included if the tape format code is also used.*

## **1.4 Application Identifiers and data structuring rules**

As indicated in § 1.3, three different data configurations are allowed:

- the three required elements of the IBTN;
- the IBTN plus the tape format code;
- the IBTN plus the tape format code and the tape duration.

To ensure that the elements can be distinguished and properly processed when represented in bar-code form, EAN<sup>1</sup> Application Identifiers (AIs) are used as prefixes to the data groups. The AIs have the effect of giving the data a specific "context".

The structure and format of EAN Application Identifiers is defined in [3]. As only a few of the AIs are used in connection with the IBTN, all the relevant information from the EAN Specification is reproduced in the following sections.

Two AIs are used in connection with the IBTN scheme, as follows:

### **1.4.1 Use of AI = 21 (Serial number)**

For the purposes of this specification, the IBTN (comprising the country code, facility code and tape identification code) shall be treated as being technically equivalent to the unique serial number component of the EAN specification. The overall length of the IBTN code (up to 14 characters) satisfies the constraints of the EAN unique serial number.

Therefore, when encoded in bar-code format, the IBTN shall be preceded by code "21", which is the AI for "serial number".

### **1.4.2 Use of AI = 240 (Additional Product information)**

For the purposes of this specification, the tape attributes (format and duration) shall be treated as being technically equivalent to the EAN additional product information. The overall length of 3 or 6 characters satisfies the constraints of the EAN Application Identifier for additional product information.

Therefore, when encoded in bar-code format, the IBTN shall be preceded by code "240", which is the AI for "additional product information".

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<sup>1</sup> EAN: European Article Number. Since February 2005, EAN and UCC have amalgamated to form GS1

### 1.4.3 Structuring rules

The three permitted data configurations (see § 1.4.) result in three lengths of data to be encoded in bar-code format. Also, it is possible to encode the tape attributes in the same bar-code as the IBTN or in a separate bar-code. Separated bar-codes may be preferable where the tape attributes need to be encoded, but where space is restricted.

Therefore, five different bar-code symbol formats are possible. These formats are listed in Table 2, together with the logical sequence of data elements, which shall be followed.

Table 2: Symbol formats and encoded data elements.

Symbol format	1st symbol	2nd symbol
1	IBTN	
2	IBTN + tape format	
3	IBTN + tape format + duration	
4	IBTN	Tape format
5	IBTN	Tape format + duration

These label formats should be used as the basis for label designs, printing software and data handling procedures.

### 1.4.4 Coding of Application Identifiers

It is necessary to distinguish between Code-128 bar-code symbols that encode EAN Application Identifiers and those that do not. The Code-128 symbology standard [4] specifies that this shall be done by inserting the symbology character Function Code 1 (FNC1) immediately following the start character and preceding the first AI.

### 1.4.5 Application Identifier separator

The EAN Specification for Application Identifiers (AIs) requires a data separator to be used between variable length AIs. AI 21 and AI 240 are both of variable length, according to the criteria defined in the EAN specification. Therefore, an explicit separator shall be used for symbol formats 2 and 3 (see Table 2) as follows:

- In databases used prior to the data being encoded into the bar-code, any character, chosen to suit the requirements of the database, may be used to represent the separator.
- In the Code-128 bar-code, the separator shall be encoded as the symbol character Function Code 1 (FNC1).

After decoding, the FNC1 separator shall be represented as ASCII character value 29 (group separator [GS]). This character shall not be used for any other purpose in the host database of the scanning system.

### 1.4.6 Data structure in the first symbol

The first (and possibly only) bar-code symbol shall be required for all symbol formats. The content, in terms of data characters and other encodable characters, is defined in Figure 1.

There is a difference between the manner in which the data is structured and how it is represented in the Code-128 bar-code symbol. Figure 2 illustrates the sequence of elements in the bar-code

symbols to clarify the differences compared to the data structure of Figure 1.

Symbol format	Data sequence and Number of data characters								Number of data characters
	AI "21"	IBTN			FNC1	AI "240"	Tape attributes		
1, 4, 5		Country	Facility	Tape ident.			Format	Duration	8 - 16
2	2	2	3	1 - 9					15 - 23
3	2	2	3	1 - 9	1	3	3		18 - 26
	2	2	3	1 - 9	1	3	3	3	

Note: *The leading FNC1 in the symbol is not part of the data stream. FNC1 precedes AI 21, but it is not transmitted.*

Figure 1: Complete data structure for the first symbol.

Formats 1,4 & 5	Start	FNC1	AI"21"	IBTN	Check	Stop			
Format 2	Start	FNC1	AI"21"	IBTN	FNC1	AI"240"	Attribute (format)	Check	Stop
Format 3	Start	FNC1	AI"21"	IBTN	FNC1	AI"240"	Attribute (format and duration)	Check	Stop

Figure 2: Bar-code symbol structure for the first symbol.

### 1.4.7 Data structure in the second (optional) symbol

The second symbol is only required if tape attribute information is to be encoded and to be represented in a second bar-code, for example to reduce the length of the first symbol. The second symbol is only required for symbol formats 4 and 5 (see Table 3). The content is defined in Figure 3. The structure of the bar-code symbols is shown schematically in Figure 4.

Symbol format	Data sequence and Number of data characters			Number of data characters
	AI "240"	Tape attributes		
		Format	Duration	
4	3	3		6
5	3	3	3	9

Note: *The leading FNC1 in the symbol is not part of the data stream. FNC1 precedes AI 21, but it is not transmitted.*

Figure 3: Complete data structure for the second symbol.

Format 4	Start	FNC1	AI "240"	Attribute (format)	Check	Stop
Format 5	Start	FNC1	AI "240"	Attribute (format and duration)	Check	Stop

Figure 4: Bar-code symbol structure for the second symbol.

### 1.5 Eye-readable information

The IBTN should be represented on labels in a prominent, eye-readable form, to enable identification and manual selection of the broadcast tape when stacked on library shelves.

The eye-readable information may be:

- the complete IBTN;
- the IBTN separated into its component parts, in which case:
  - the country code and facility code should be printed as one group;
  - the tape identification code should form a second group;
  - the tape attributes should form a third group.

It shall not be necessary to show the application identifiers as part of the eye-readable information, but this may be done if it means that standard bar-code printing equipment and software can be used.

Practical advice concerning the layout of eye-readable information is given in § 3.1.

### 1.6 Character set

The characters listed in Table 3 shall be used for data encoding. Those listed as having “possible restrictions” may not be suitable for all forms of electronic communication.

Table 3: IBTN character set

Unrestricted use		Possible restrictions	
Uppercase alphabetic	A-Z	Exclamation mark	!
Numerals	0-9	Quotation mark	“
Space character		Percent sign	%
Full stop/decimal point	.	Ampersand	&
Comma	,	Asterisk	*
Hyphen/minus sign	-	Semi-colon	;
Left parenthesis	(	Less-than sign	<
Right parenthesis	)	Greater-than sign	>
Solidus/stroke	/		
Equals sign	=		

This character set conforms to that used in the EDIFACT Standard and it has been adopted in order to provide compatibility with the possible future use of EDI by the broadcast industry.

The space character shall not be used in the facility code, tape format code or tape duration (see § 1.3).

If the characters in the right-hand column (those with possible restrictions) are used, it is nonetheless strongly recommended that the quotation mark shall not be used. This is because the quotation mark is used as a control code in some database systems and its use could corrupt data during import or export.

## 2. Bar-code label specification

The IBTN uses a form of bar-code, which is standardised by the Comité Européen de Normalisation (CEN) [4].

### 2.1 Symbology<sup>1</sup>

The bar-code symbology shall be Code-128.

Three unique interpretations of the symbol characters of Code-128 are available when used according to specified rules. One of these character subsets allows two numeric digits to be compacted into the symbol space normally taken to encode a single character. Rules are defined in the Code-128 standard to enable the shortest symbol to be generated for any given data. These rules shall apply for the present IBTN specification.

### 2.2 Dimensional parameters

#### 2.2.1 X dimension

The X dimension shall be within the range from 0.20 mm to 0.35 mm and shall be constant for a given bar-code symbol. The X dimension shall be selected primarily on the basis of the following criteria:

- The symbol format selected by the facility (see Table 2).
- The physical size of tape formats used by the facility.
- The possibility of numeric compaction in the Code-128 symbol.

These criteria effectively constrain the size of the X dimension, so they should be considered prior to the purchase of any label printing equipment, or the purchase of pre-printed labels from a bar-code label supplier.

#### 2.2.2 Dimensional tolerances

The tolerances in this § shall not apply to the testing of bar-code symbol quality in accordance with the procedures described in § 2.3.3., but may be used for alternative methods of assessment based on dimensional measurement.

Three tolerances are applicable to Code-128 bar-code symbols. They are illustrated in Figure 5 and are defined as follows:

$T_b$  is the tolerance on bar and space widths (dimension  $b$  in Figure 5).

$T_e$  is the tolerance on abutting bars and spaces within a symbol character and is illustrated as the four dimensions 'e' in Figure 5. These dimensions are measured from the leading edge of a bar to the leading edge of the following bar, or the trailing edge of a bar to the trailing edge of the following bar.

$T_p$  is the tolerance applied to the total width of a symbol character (shown as dimension 'p' in Figure 5).

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<sup>1</sup> A Glossary of specialist terms used in the bar-code technology field is given in § 5

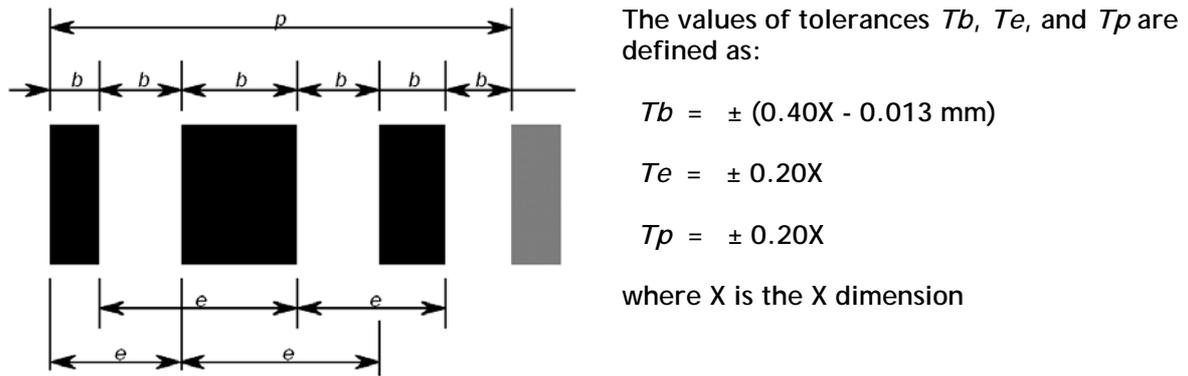


Figure 5: Bar-code tolerance measurements

The stop character shall satisfy the tolerances when measured as a symbol character of standard width consisting of the first three bars and first three spaces. In addition, it shall satisfy the tolerances when viewed in reverse, with the last three bars and last three spaces regarded as a symbol character.

**2.2.3 Quiet zone**

A quiet zone shall be maintained before and after Code-128 bar-code symbol. This zone shall be free of any other printing and shall not overlap the edge of the label. The minimum width of the quiet zone shall be 10X.

**2.2.4 Bar height**

The minimum height of the bars shall be 10 mm. If the label is placed on the edge of a broadcast tape, the bar height should be no less than 50% of the label height.

**2.3 Optical parameters**

**2.3.1 Measurement conditions**

All optical measurements shall be made on the IBTN bar-code symbol in its final form.

**2.3.2 Scanning waveband**

The peak response wavelength of the measuring apparatus should be 633 nm. Peak response wavelengths from 620 nm to 680 nm shall be acceptable.

**2.3.3 Measurement methods**

At the time of publication of this specification, methodologies for the measurement of bar-code symbol quality are evolving. Until 31 December 1995, the traditional methodology described in § 2.3.3.a) shall be the preferred method.

For a number of years beyond 1 January 1996, this methodology is expected to remain in use, in parallel with that presented in § 2.3.3.b).

**a) Conventional method**

The symbols shall be scanned at any single wavelength within the range of 620 nm (minimum) to 680 nm (maximum) with a measuring aperture of 0.2 mm diameter.

The reflectance of the background label shall be at least 50 %.

The print contrast signal (PCS) between the bars and spaces shall be at least 0.75 where:

$$PCS = \frac{R_L - R_D}{R_L}$$

Where:  $R_L$  = percentage reflectance of the substrate or spaces in the bar-code;

$R_D$  = percentage reflectance of the printed bars.

**b) Scanning reflectance profile method**

The new methodology for measuring bar-code symbol quality is based on an analysis of the scan reflectance profiles. The scan reflectance profile is a plot of reflectance against linear distance across the symbol. The methodology is designed to maximise the consistency of both reflectivity and bar and space width measurements of bar-code symbols on various substrates. It is also intended to correlate with processes incorporated in bar-code scanning hardware.

A European Standard for this methodology is being drafted at the time of publication of the present IBTN specification. When it is published, the European Standard will be adopted and parameters set which correspond to those established in § 2.3.3.a).

In the longer term, the scanning reflectance profile shall be the preferred method for the verification of the conformity of symbol quality with this IBTN specification.

**3. Label design and production****3.1 Label design****3.1.1 General graphic concepts**

The design of the label shall be the responsibility of the broadcaster or facility that assigns the tape identification code. The following elements shall be taken into account in the design of the eye-readable parts of the label:

The character set shall be capable of representing all the characters specified in § 1.6.

Any eye-readable font may be used.

The characters may be represented so that they are vertically aligned with the bars of the bar symbol (see Figure 6). The orientation of the text shall be based on convenience for reading with the human eye in the normal storage orientation.

The font may be proportionally spaced or be of fixed pitch.

The size of the characters may vary, but should be no less than 3 mm high.

Some freedom shall be available in the placement of data, keeping in mind two objectives:

- primarily, text shall be clear of the bar-code and not take up too much of the label space, to ensure that the bar-code symbol can be scanned reliably;
- the text shall be easily eye-readable.

The need to reach a compromise on these factors has been taken into account in the sample label shown in Figure 6.

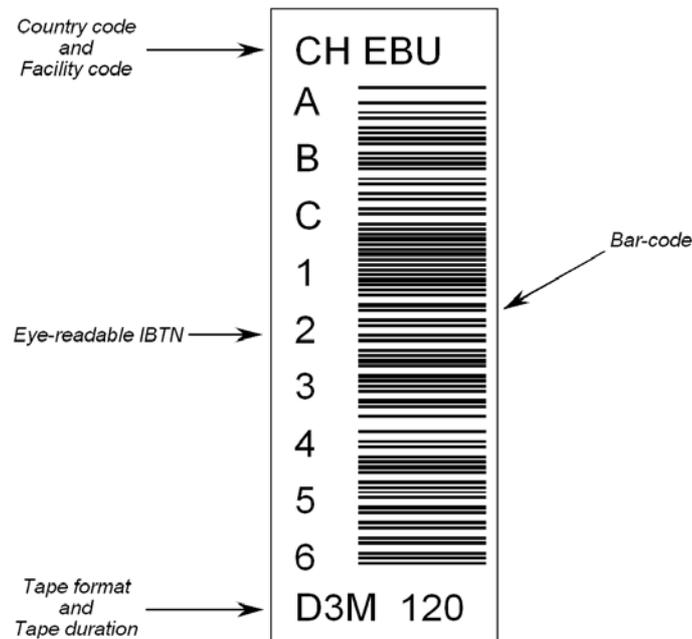


Figure 6: Typical label format.

### ***Label size and position of container label***

The label shall be of suitable dimensions and positioned on the container in such a manner that it is clearly visible when stored on shelves with other tapes or cassettes.

The sample label shown in Figure 6 has been designed to fit on the short side the cassette, so that the label is visible when the cassette is stored with the spine (long side) facing up, thus giving the most efficient use of library shelves. This label position is also suitable for the storage of smaller cassettes in drawers containing several rows of cassettes.

The sample label has been designed for use with Betacam format cassettes, and is also suitable for MII and all digital format cassettes. The label may be curved or square cut at the corners.

### **3.1.2 Cassette label**

A label carrying the tape identification code shall also be fixed to the cassette or spool reel, to ensure that the tape can be reliably replaced in the correct container after use. The essential requirement in this situation is that the number shall be easily eye-readable; use of the bar-code is optional.

The position of the tape identification code on the cassette or spool is not prescribed. However, it should not be fixed to the spine of a cassette, which is reserved for machine-specific labels for automatic cassette-handling machines.

## **3.2 Label production**

### **3.2.1 Production of individual labels**

As each IBTN symbol is unique, on-demand printing methods may be used for labels printed on-site. Both thermal transfer and laser xerography are generally suitable print technologies

Other technologies capable of satisfying the optical specification (see § 2.3) and having a pixel size of 0.175 mm or smaller may be used. Note that dot matrix printing technology should not be used.

Print quality should be monitored regularly when using on-demand print technologies.

### **3.2.2 Production by bar-code bureaux**

A broadcast company or facility may choose to purchase pre-printed labels conforming in all respects to the present specification. Depending on the commonality of tape formats, a bureau may be able to provide a sequence of serially numbered IBTNs, with or without the tape format and duration. The bureau may use the on-demand printing technologies listed in § 3.2.1, or other technologies it considers suitable, provided that the finished label meets the dimensional tolerances (see § 2.2.2) and optical specification (see § 2.3).

§ 4.2.2 provides advice on reading labels that may be damaged prior to use.

A guarantee of symbol quality should be offered by the bar-code label bureau.

### **3.2.3 Label materials**

It shall be possible to scan the IBTN symbol reliably for a period of 20 years, and for 500 scans. The labels shall normally be white with the information printed in black.

The choice of label material shall take account of:

- The method of label printing and production.
- The preference for standard sized labels (see § 3.1.2).
- Whether the printed label is to be protected from damage by the use of lamination or other secondary process.
- The bar-code requirements, particularly for the dimensional specification (see § 2.2.2) and optical specification (see § 2.3).
- The preference for self-adhesive labels.

### **3.2.4 Use of laminates**

Any form of lamination may be used to protect the label, provided that:

- it shall, when placed over the bar-code, still satisfy the optical specification (see § 2.3);
- it shall not reduce the 20-year lifespan specified in § 3.2.3.

## **4. IBTN code registers**

### **4.1 *International code register***

Proper functioning of the IBTN scheme is critically dependent on the maintenance of up-to-date registers of country codes, facility codes and tape format codes.

The Technical Department of the European Broadcasting Union is the central body responsible for the management of the IBTN code register.

#### **4.1.1 Country codes**

The IBTN country codes are identical to the "ISO-2" codes listed in ISO 3166 [2]. Codes for countries in the European Broadcasting Area (correct as at October 2011) are listed in Appendix 1. This list may be extended in accordance with agreed changes to the international standard.

#### **4.1.2 Facility codes**

The facility code shall be assigned by the EBU. The EBU shall ensure that each facility code is assigned to one organisation, only. The current list of facility codes is maintained in Appendix 2 of this document.

Broadcasters or other production facilities active in the European Broadcasting Area may apply for a unique IBTN facility code using the form in Appendix 5.

#### **4.1.3 Tape format codes**

The current list of tape format codes, covering broadcast video and audio tapes, films and related items, is given in Appendix 3.

This list will be extended in accordance with users' requirements. Broadcasters and facilities companies wishing to propose additional media for inclusion in the list should contact the EBU Technical Department (see § 4.3).

## **4.2 *Maintenance of the integrity of broadcasters' databases***

Broadcasters and facilities companies are responsible for the development and maintenance of their internal databases. The database system should take due account of the requirements set out in this section.

### **4.2.1 Internally assigned codes**

Broadcasters and facilities companies are free to use any codes of their choice for the tape identification and tape duration, subject to the constraints set out in § 1.1.3 and § 1.2.2 respectively.

### **4.2.2 Symbols rejected during label production**

During the course of the initial production of the IBTN label or the lamination process, damage could occur which would cause a bar-code label to be unreadable. There shall be no need to provide a replacement label carrying identical data. An audit trail may be kept of damaged or unreadable labels that are discarded at source.

### 4.2.3 Replacement of symbols when a tape is on the database

The IBTN label should be replaced when the tape is erased and re-used for another broadcast. The integrity of the system is maintained by changing the IBTN label to correspond with a new use for the tape.

Note: Advice about the numbering of tapes used and re-used entirely for internal purposes will be given in a separate document.

If a label suffers damage while in service, it shall be replaced with a label carrying the same IBTN.

### 4.2.4 Pre-emptive tape number assignment

A broadcaster may need to assign codes to broadcast material that have not yet been coded by a facility. The following alternatives may be used:

The broadcaster can assign an IBTN using its own facility code and tape identification code, as if it were the originator. This solution enables all broadcast tapes to be compatible with the IBTN, including those created before the establishment of the IBTN scheme.

The broadcaster can assign a facility code of its choice, and a tape identification code, under the country designation "ZZ". This scheme enables imported tape to be distinguished from those created in-house.

*Note: Broadcast tapes coded using the second solution should not be transferred out of the organization.*

## 4.3 Enquiries

All enquiries concerning the IBTN scheme should be addressed to:

EBU TECHNICAL  
l'Ancienne Route 17A  
CH-1218 LE GRAND-SACONNEX (GE)  
Switzerland

Fax: (+41 22) 747 4000 - to "EBU Technical", please.

e-mail: tech@ebu.ch

## 5. Glossary

### 5.1 Broadcast industry definitions

For the purpose of the IBTN specification, the following definitions shall apply:

broadcaster	Any organisation which originates a service of transmission for public viewing, irrespective of the means of transmission.
broadcast tape	A programme recording on film, magnetic, optical or other medium which may be used for transmission by a broadcaster.
facility	An organisation which carries out recording or post production operations on a programme, either for its own use or for an independent production team.

## 5.2 Bar-code and data-related definitions

For the purpose of the IBTN specification, the following definitions shall apply:

Application Identifier	A form of data identifier used exclusively in the EAN/UCC system to represent data in the EAN-128 subset of Code 128 bar-codes.
check character	A character included in a code in order to perform a mathematical check that when a machine reading operation is carried out the code is correct. Its value is calculated from the other characters in the code.
Code 128	A bar-code symbology that can encode the entire 128 ASCII character set. It has three different code sets, one of which enables numeric data to be represented in a very compact form.
EAN-128	A subset of Code-128 symbology used to represent EAN/UCC (GS1 after February 2005) application identifiers and their associated data.
print contrast signal (PCS)	A measure of the relative difference between the reflectance of dark bars and the reflectance of light spaces.
quiet zone	The area that must precede the start character and follow the stop character of a bar-code symbol.
reflectance 1	The amount of light of a specified wavelength or range of wavelengths that is reflected from a substrate, ink, or other means to create the dark bars and light spaces of a bar-code symbol.
reflectance 2	(Sometimes called reflectance factor). Reflectance is measured on a scale of 0 to 1, at a wavelength or bandwidth of light (spectral response) specified in the particular application specification. Barium sulphate or magnesium oxide are used as "near-perfect" reference white standards (a perfect standard of pure white would have a reflectance of 1.00 at any wavelength of light). The absence of any light in a vacuum is used as reference black standard.
symbology	Any of the standard systems of representing data in bar-code form, each having its particular characteristics and rules of composition, such as Code-39, Code-128, Interleaved 2 of 5, EAN/UPC. The symbology specifies the character set, start and stop codes, length, etc.
X dimension	The desired dimension of the narrowest bar and narrowest space in a bar-code symbol.

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## Appendix 1: ISO-2 codes for countries in the European Broadcasting Area

Country	ISO-2 code	Country	ISO-2 code
Albania	AL	Libya	LY
Algeria	DZ	Lithuania	LT
Andorra	AD	Luxembourg	LU
Armenia	AM	Macedonia (former YR)	MK
Austria	AT	Malta	MT
Azerbaijan	AZ	Moldova (Republic of)	MD
Belarus	BY	Monaco	MC
Belgium	BE	Montenegro	ME
Bosnia-Herzegovina	BA	Morocco	MA
Bulgaria	BG	Netherlands	NL
Croatia	HR	Norway	NO
Cyprus	CY	Poland	PL
Czech Republic	CZ	Portugal	PT
Denmark	DK	Romania	RO
Egypt	EG	Russian Federation	RU
Estonia	EE	San Marino (Republic of)	SM
Faroe Isles	FO	Serbia	RS
Finland	FI	Slovakia	SK
France	FR	Slovenia	SI
Georgia	GE	Spain	ES
Germany	DE	Sweden	SE
Greece	GR	Switzerland	CH
Greenland	GL		
Hungary	HU	Tunisia	TN
Iceland	IS	Turkey	TR
Ireland	IE	Ukraine	UA
Israel	IL	United Kingdom	GB
Isle of Man	IM	Vatican City State	VA
Italy	IT		
Jordan	JO		
Latvia	LV		
Lebanon	LB	Reserved for internal use (Note 2)	ZZ

### Notes:

1. The IBTN scheme is not implemented beyond the countries listed in this Appendix.
2. The reserved code ZZ is fully compatible with ISO 3166.



## Appendix 2: Assigned facility codes

Country	ISO-2 code	IBTN facility code	Facility name	Notes
Albania	AL	RTV	Radiotelevizioni Shqiptar	EBU
Algeria	DZ	ENR	Enterprise Nationale de Télévision	EBU
	DZ	ENT	Enterprise Nationale de Radiodiffusion Sonore	EBU
	DZ	TDA	Télédiffusion d'Algérie	EBU
Austria	AT	ORF	Österreichischer Rundfunk	EBU
Belarus	BY	BTR	Belaruskaja Tele-Radio Campanija	EBU
Belgium	BE	BRT	Vlaamse Radio en Televisieomroep	EBU
	BE	RTB	Radio-Télévision Belge de la Communauté Française	EBU
Bosnia-Herzegovina	BA	RTV	Radio Televizija Bosne I Hercegovine	EBU
Bulgaria	BG	BNR	Bălgarsko Nationalo Radio	EBU
	BG	BNT	Bălgarska NationalaTelevizija	EBU
Croatia	HR	HRT	Hrvatska Radiotelevizija	EBU
Cyprus	CY	CBC	Cyprus Broadcasting Corporation	EBU
Czech Replubic	CZ	CRX	Ceska Rozhlas	EBU
	CZ	CTV	Ceska Televize	EBU
Denmark	DK	DRX	Danmarks Radio	EBU
	DK	TV2	TV2 Danmark	EBU
Egypt	EG	ERT	Egyptian Radio and Television	EBU
Estonia	EE	ERA	Eesti Raadio	EBU
	EE	ETV	Eesti Televisioon	EBU
Faroe Isles	FO	FRT	Faroes Radio Television	
Finland	FI	MTV	MTV	EBU
	FI	YLE	Yleisradio	EBU
France	FR	ART	ARTE	AP
	FR	CPX	Canal Plus: France	EBU
	FR	E1X	Europe 1	EBU
	FR	FT2	France 2	EBU
	FR	FT3	France 3	EBU
	FR	RFI	Radio France Internationale	EBU
	FR	SRF	Radio France	EBU
	FR	TDF	Télédiffusion de France	EBU
	FR	TF1	Télévision Française 1	EBU
Germany	DE	BRX	Bayerischer Rundfunk	EBU
	DE	DFS	Deutsches Fernsehen	EBU
	DE	DLR	DeutschlandRadio	EBU
	DE	DWX	Deutsche Welle	EBU
	DE	HRX	Hessischer Rundfunk	EBU
	DE	MDR	Mittledeutscher Rundfunk	EBU
	DE	NDR	Norddeutscher Rundfunk	EBU
	DE	ORB	Ostdeutscher Rundfunk Brandenburg	EBU
Germany	DE	RBX	Radio Bremen	EBU

Country	ISO-2 code	IBTN facility code	Facility name	Notes
(contd.)	DE	SDR	Süddeutscher Rundfunk	EBU
	DE	SFB	Sender Freies Berlin	EBU
	DE	SRX	Saarländischer Rundfunk	EBU
	DE	SWR	Südwestrundfunk	EBU
	DE	VTM	Voice & Text production GmbH i.G.	
	DE	WDR	Westdeutscher Rundfunk	EBU
	DE	ZDF	Zweites Deutsches Fernsehen	EBU
Greece	GR	ERT	Elliniki Radiophonia Tileorassi	EBU
Greenland	GL	KNR	Kalaalit Nunaata Radio	EBU
Hungary	HU	MRX	Magyar Radio	EBU
	HU	MTV	Magyar Televízió	EBU
Iceland	IS	RUV	Ríkisutvarpid	EBU
Ireland	IE	RTE	Radio Telfis Eireann	EBU
Israel	IL	IBA	Israel Broadcasting Authority	EBU
	IL	IET	Israeli Educational Television	AP
Italy	IT	RAI	Radiotelevisione Italiana	EBU
Jordan	JO	JRT	Jordan Radio and Television Corporation	EBU
Latvia	LV	LRX	Liatvijas ValstsRadio	EBU
	LV	LTX	Latvijas Valsts Televizija	EBU
Lebanon	LB	RTL	Radio Liban/Tele Liban	EBU
Libyan Arab Jamahiriya	LY	LJB	Libya Jamahiriya Broadcasting	EBU
Liechtenstein	LI			EBU
Lithuania	LT	LRT	Lietuvos Radijas Ir Televizija	EBU
Luxembourg	LU	CLT	CLT Multi Media	EBU
Macedonia (FYR of)	MK	MRT	MKRTV	EBU
Malta	MT	MBA	Broadcasting Authority Malta	EBU
	MT	PBS	Public Broadcasting Services Ltd, Malta	EBU
Moldavia	MD	TRM	Teleradio Moldova	EBU
Monaco	MC	MCI	Monte-Carlo	EBU
	MC	MCR	Monte-Carlo Radiodiffusion	EBU
	MC	RMC	Radio Monte-Carlo	EBU
	MC	TMC	Télé Monte-Carlo	EBU
Morocco	MA	RTM	Radiodiffusion Télévision Marocaine	EBU
Netherlands	NL	AIS	Amsterdam inVision Subtitling	
	NL	ASK	Alfred Klaason Studio, Amsterdam	
	NL	AVR	Algemene Omroepvereniging AVRO	EBU
	NL	ECP	European Communication Projects	
	NL	EOX	Vereniging De Evangelische Omroep	EBU
	NL	HNS	Hoek & Sonopouse, Diemen	
	NL	IBG	Nederlands Instituut voor Beeld en Geluid	
	NL	JUL	Studio Jules, Hilversum	
	NL	KRO	Katholieke Radio Omroep	EBU
	NL	MSD	Marco Sounddesign, Amsterdam	
	NL	NCR	Nederlandse Christelijke Radio Vereniging	EBU
NL	NOB	Nederlandse Omroepproductie Bedrijf NV	EBU	

Country	ISO-2 code	IBTN facility code	Facility name	Notes
Netherlands (contd.)	NL	NOS	Nederlandse Omroep Stichting	EBU
	NL	NPS	Nederlandse Programma Stichting	EBU
	NL	OND	Ondertiteling.NL (Dutch subtitling databank)	
	NL	PLA	Planet Language	
	NL	RNW	Radio Nederland Wereldomroep	EBU
	NL	SUB	Subtitling.CX	
	NL	TRO	Televisie Radio Omroep Stichting	EBU
	NL	UPC	UPC Programming B.V.	
	NL	UPP	UPC Programming (Promotions) B.V.	
	NL	VAL	Valkieser, Hilversum	
	NL	VAR	Omroepvereniging VARA	EBU
	NL	VCD	Vereniging Campusomroep Drienerlo	
	NL	VOO	Veronica Omroep Organisatie	EBU
	NL	VPR	Vrijzinnig Protestantse Radio Omroep	EBU
Norway	NO	NRK	Norsk Rikringkasting	EBU
	NO	TV2	TV2	EBU
Poland	PL	PRX	Polski Radio SA	EBU
Portugal	PL	TVP	Telewizja Polska SA	EBU
	PT	RDP	Radiodifusao Portuguesa SA	EBU
	PT	RTP	Radiotelevisao Portuguesa SA	EBU
Romania	RO	RRX	Radio Romana	EBU
	RO	TVR	Televiziunea Romana	EBU
Russian Federation	RU	RTO	Radio Televidenie Ostankino	EBU
	RU	RTR	Rossijskoe Teleradio	EBU
	RU	SPB	TeletextData Petersburg	
Slovakia	SK	SRX	Slovensky Rozhlas	EBU
	SK	STV	Slovenska Televizia	EBU
Slovenia	SI	RTV	Radiotelevizija Slovenija	EBU
Spain	ES	RNE	Radio Nacional de España	EBU
	ES	SER	Sociedad Española de Radio	EBU
	ES	TVE	Television Española	EBU
Sweden	SE	SDI	SDI Media Scandinavia	
	SE	SRF	Swedish Broadcasting Resources	EBU
	SE	SRX	Sveriges Radio	EBU
	SE	SVT	Sveriges Television	EBU
	SE	URX	Sveriges Utbildingsradio	EBU
Switzerland	CH	EBU	European Broadcasting Union	EBU
	CH	SFD	Schweizer Fernsehen DRS	EBU
	CH	SRD	Schweizer Radio DRS	EBU
	CH	RRU	Radio Rumantsch	EBU
	CH	RSI	Radio Svizzera di Lingua Italiana	EBU
	CH	TSI	Television Svizzera di Lingua Italiana	EBU
	CH	RSR	Radio Suisse Romande	EBU
	CH	SRI	Radio Suisse International	EBU
	Switzerland	CH	TSR	Télévision Suisse Romande

Country	ISO-2 code	IBTN facility code	Facility name	Notes
(cont.)	CH	SU4	Suisse/Schweizer/Svizzera 4	EBU
	CH	UER	Union Européenne de Radio-Télévision	EBU
Syria	SY	ORT	Organisme de la Radio Télévision Arabe Syrienne	EBU
Tunisia	TN	ERT	Establishment Radiodiffusion Télévision Tunisienne	EBU
Turkey	TR	TRT	Turkiye Radyo Televizyon Kurumu	EBU
Ukraine	UA	DTR	Derzhavna Teleradiomovna Kompania Ukrainy	EBU
United Kingdom	GB	124	124 Facilities	
	GB	ANG	Anglia Television	EBU
	GB	BAR	Baraka Post Production	
	GB	BBC	British Broadcasting Corporation	EBU
	GB	BTV	Border Television	EBU
	GB	C4X	Channel 4 Television	EBU
	GB	CAP	Capital Radio	
	GB	CAR	Carlton Television	EBU
	GB	CEN	Central Television	EBU
	GB	CNE	Cartoon Network	
	GB	CHA	Channel Television	EBU
	GB	CRG	Capital Radio Group	
	GB	GMT	GMTV Ltd.	
	GB	GPN	Grampian Television	EBU
	GB	GRA	Granada Television	EBU
	GB	HLT	Headlight Technology	
	GB	HTV	Harlech Television	EBU
	GB	IT2	ITV2	EBU
	GB	ITF	Independent Television Facilities Centre	EBU
	GB	ITN	Independent Television News	EBU
	GB	ITS	Independent Television News	EBU
	GB	ITV	Independent Television Facilities Centre	EBU
	GB	IWM	Imperial War Museum	
	GB	JCA	John Claxton Associates Ltd.	
	GB	LNN	London Network News	
	GB	LWT	London Weekend Television	EBU
	GB	MEB	Middle East Broadcasting Centre	AP
	GB	MER	Meridian Broadcasting	EBU
	GB	MET	Metropolis Group Limited	
	GB	MPC	Moving Picture Company	
	GB	MTV	Mersey Television	
	GB	S4C	Sianel 4 Cymru	EBU
	GB	STV	Scottish Television	EBU
	GB	TEW	The Edit Works Ltd.	
	GB	TNT	Turner Network Television	
	GB	TSI	TSI Video Limited	
	GB	TTT	Tyne Tees Television	EBU
	GB	UTV	Ulster Television	EBU
	GB	WES	Westcountry Television	EBU

Country	ISO-2 code	IBTN facility code	Facility name	Notes
UK (cont.)	GB	YTV	Yorkshire Television	EBU
	GB	ZVE	Zone Vision Enterprises Ltd.	
Vatican City State	VA	RVX	Radio Vatican	EBU

*Notes: EBU = EBU Member*

*AP = EBU Approved Participant*

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### Appendix 3: Codes for broadcast tapes, films and related items

IBTN Code	Format	Size/Capacity
16T	16 mm SEPMAG analogue audio film	-
17T	17.5 mm SEPMAG analogue audio film	-
1BL	25.4 mm (1") B-format analogue television tape	Large reel
1BM	25.4 mm (1") B-format analogue television tape	Medium reel
1BS	25.4 mm (1") B-format analogue television tape	Small reel
1CL	25.4 mm (1") C-format analogue television tape	Large reel
1CM	25.4 mm (1") C-format analogue television tape	Medium reel
1CS	25.4 mm (1") C-format analogue television tape	Small reel
2QL	50.8 mm Transverse Track (Quad) format analogue television tape	Large reel
2QM	50.8 mm Transverse Track (Quad) format analogue television tape	Medium reel
2QS	50.8 mm Transverse Track (Quad) format analogue television tape	Small reel
33L	33 rpm LP phonogram analogue audio disk	-
35T	35 mm SEPMAG analogue audio film	-
45D	45 rpm phonogram analogue audio disk	-
78D	78 rpm phonogram analogue audio disk	-
A01	6.3 mm (1/4") analogue audio tape, Full track	-
A02	6.3 mm (1/4") analogue audio tape, 2 channel	-
A04	6.3 mm (1/4") track half width analogue audio tape, Stereo	-
A08	12.5 mm (1/2") analogue audio tape, 8 channel	-
A16	25.4 mm (1") analogue audio tape, 16 channel	-
A32	25.4 mm (1") analogue audio tape, 32 channel	-
AI1	AIT (Advanced Intelligent Tape) digital data tape	25 Gbyte
AI2	AIT (Advanced Intelligent Tape) digital data tape	50 Gbyte
AI3	AIT (Advanced Intelligent Tape) digital data tape	36 Gbyte
AIX	AIT (Advanced Intelligent Tape) digital data tape, Extended length	35 Gbyte
AS2	6.3 mm (1/4") analogue audio tape, 2 channel stereo	-
AT2	6.3 mm (1/4") analogue audio tape, 2 channel stereo & TC	-
BDL	Digital Betacam format digital television tape	Large cassette
BDS	Digital Betacam format digital television tape	Small cassette
BML	Betacam SP (Metal) format analogue television tape	Large cassette
BMS	Betacam SP (Metal) format analogue television tape	Small cassette
BMX	Betamax format analogue television tape, cassette	-
BOL	Betacam (Oxide) format analogue television tape,	Large cassette
BOS	Betacam (Oxide) format analogue television tape,	Small cassette
CCA	Compact Cassette format analogue audio tape, cassette	
CDA	Compact Disk Audio digital audio disk	12 cm dia
CDD	CD-ROM digital data disk	12 cm dia
CDI	CD-i interactive multimedia digital data disk	12 cm dia
CDR	Recordable CD digital data disk	12 cm dia
D1L	D1 format digital television tape	Large cassette
D1S	D1 format digital television tape	Small cassette

IBTN Code	Format	Size/Capacity
D24	25.4 mm (1") DASH format digital audio tape, 24 track	-
D2L	D2 format digital television tape	Large cassette
D2M	D2 format digital television tape	Medium cassette
D2S	D2 format digital television tape	Small cassette
D32	25.4 mm (1") PD format digital audio tape, 32 channel	-
D3L	D3 format digital television tape	Large cassette
D3M	D3 format digital television tape	Medium cassette
D3S	D3 format digital television tape	Small cassette
D48	25.4 mm (1") DASH format digital audio tape, 48 track	-
D5L	D5 format digital television tape	Large cassette
D5M	D5 format digital television tape	Medium cassette
D5S	D5 format digital television tape	Small cassette
D5H	D5 format HDTV digital television tape	-
D6L	D6 format HDTV digital television tape	Large cassette
D7L	D7 (DVCPRO 25) format digital television tape	Large cassette
D7M	D7 (DVCPRO 25) format digital television tape	Medium cassette
D7S	D7 (DVCPRO 25) format digital television tape	Small cassette
DA2	DAT format digital audio tape, 2 channel	-
DAT	DAT format digital audio tape, Stereo	-
DCC	DCC format digital audio tape	-
DCL	DCT format digital television tape	Large cassette
DCM	DCT format digital television tape	Medium cassette
DCS	DCT format digital television tape	Small cassette
DD2	6.3 mm (1/4") DASH format digital audio tape, 2 channel	-
DL3	DTL-III format digital data tape, cassette	-
DL4	DTL-IV format digital data tape, cassette	-
DLX	DTL-III extended format digital data tape, cassette	-
DP2	6.3 mm (1/4") PD format digital audio tape, 2 channel	-
DS1	DDS-1 (Digital Data Storage) format digital data tape	2 Gbyte on 120 m cassette
DS2	DDS-2 (Digital Data Storage) format digital data tape	8 Gbyte on 120 m cassette
DS3	DDS-3 (Digital Data Storage) format digital data tape	24 Gbyte on 125 m cassette
DS4	DDS-4 (Digital Data Storage) format digital data tape	40 Gbyte on 155 m cassette
DSC	Digital-S format digital television tape	Compact cassette
DSS	Digital-S format digital television tape	Standard cassette
DVC	DVCAM format digital television tape	-
DVM	DV format digital television tape	Mini cassette
DVN	DV format digital television tape	Normal cassette
DVH	HDV format HDTV digital television tape	-
F16	16 mm picture analogue television film reel	-
F35	35 mm picture analogue television film reel	-
FD3	3.5" diskette digital data disk reel	-
FD5	5.25" diskette digital data disk reel	-
FD8	8" diskette digital data disk	-
FSV	File server digital data disk	-
HCL	HDCAM format digital television tape	Large cassette

IBTN Code	Format	Size/Capacity
HCS	HDCAM format digital television tape	Small cassette
HDF	Removable Firewire (IEEE1394) hard disk drives	(capacity in Gbyte may be appended)
HDS	Removable SCSI hard disk drives	(capacity in Gbyte may be appended)
HDU	Removable USB2 hard disk drives	(capacity in Gbyte may be appended)
HSL	HDCAM SR format digital television tape	Large cassette
HSS	HDCAM SR format digital television tape	Small cassette
HI8	Hi-8 format 8 channel digital audio tape, cassette	-
H8A	Hi-8 format analogue television tape, cassette	-
IML	D10 (IMX MPEG) format digital television tape	Large cassette
IMS	D10 (IMX MPEG) format digital television tape	Small cassette
JZD	JAZ format digital data disk	-
LAQ	Lacquer phonograph analogue audio disk	-
LTA	LTO (Linear Open) Accelis (8mm) digital data tape, cassette	-
LTU	LTO (Linear Open) Ultrium (1/2") digital data tape, cassette	-
M06	MO disk digital data disk	600 Mbyte
M12	MO disk digital data disk	1200 Mbyte
M13	MO disk digital data disk	1300 Mbyte
M2L	MII format analogue television tape	Large cassette
M2S	MII format analogue television tape	Small cassette
MDA	MD (Mini-Disk) digital audio disk	-
NAB	NAB cartridge analogue audio tape	-
P2F	P2 format solid state flash memory card, CardBus interface	(capacity in Gbyte may be appended)
RPB	REV PRO Digital Media Disk, Broadcast Performance	35 Gbyte
RPX	REV PRO Digital Media Disk, Extra Performance	40 Gbyte
RPE	REV PRO Digital Media Disk, Extended Recording	65 Gbyte
S16	Super 16 mm picture analogue television film	-
SRL	HDCam SR format digital television tape	Large cassette
SRS	HDCam SR format digital television tape	Small cassette
SSM	Solid state memory storage cards, USB keys etc.	(capacity in Mbyte may be appended)
SVA	A-DAT 8 channel digital audio tape	-
SVC	S-VHS format analogue television tape	Compact cassette
SVS	S-VHS format analogue television tape	Standard cassette
SXL	Betacam SX format digital television tape	Large cassette
SXM	Betacam SX format digital television tape	Medium cassette
SXS	Betacam SX format digital television tape	Small cassette
UMS	U-matic format analogue television tape	Small cassette
USP	U-matic SP format analogue television tape	Small cassette
V00	Video 2000 format analogue television tape	-
V5L	DVCPRO 50 format digital television tape	Large cassette
V5M	DVCPRO 50 format digital television tape	Medium cassette
V5S	DVCPRO 50 format digital television tape	Small cassette
VHL	DVCPRO-HD format digital television tape	Large cassette
VHX	DVCPRO-HD format digital television tape	Extra Large cassette
VCR	VCR format analogue television tape	-
VDO	DVD digital television disk Single sided, single layer	12 cm dia.

IBTN Code	Format	Size/Capacity
VD1	DVD digital television disk Single sided, double layer	12 cm dia.
VD2	DVD digital television disk Double sided, single layer	12 cm dia.
VD4	DVD digital television disk Double sided, double layer	12 cm dia.
VD5	DVD-R recordable optical disk single sided, single layer	12 cm dia.
VD6	DVD-R recordable optical disk single sided, double layer	12 cm dia.
VD7	DVD+R recordable optical disk single sided, single layer	12 cm dia.
VD8	DVD+R recordable optical disk single sided, double layer	12 cm dia.
VD9	DVD+RW rewritable optical disk single sided, single layer	12 cm dia.
VHC	VHS format analogue television tape	Compact cassette
VHS	VHS format analogue television tape	Standard cassette
VI8	Video 8 format analogue television tape	-
VLD	Video Laser Disk format analogue television disk cassette	-
WAX	Wax cylinder phonogram analogue audio disk	-
XBM	Exabyte mammoth format digital data tape	-
XDC	XDCAM rewritable optical disk	23 Gbyte
XD5	XDCAM rewritable optical disk	50 Gbyte
XX1 - XX9	Assigned internally	format will not be exchanged
ZIP	Zip digital data disk	-

This list of IBTN codes will be updated when new storage formats are created. If you believe that formats are missing from this table please e-mail your suggestions to [tech@ebu.ch](mailto:tech@ebu.ch) .

## Appendix 4: Bibliography

- [1] EBU Technical Recommendation R82-1995: Universal number and bar-code scheme for broadcast tapes, films and related media
- [2] ISO Standard 3166-1 alpha-2: Codes for the representation of names of countries
- [3] *GS1 General Specifications (General EAN Specifications) are obtainable from Global Standards One (GS1)*

GS1 AISBL,  
Blue Tower,  
Avenue Louise, 326  
BE-1050 Brussels  
Tel: +32 2 788 7800  
Fax: +32 2 788 7899  
web: <http://www.gs1.org>

*Note:* Information required for the purposes of the IBTN scheme is in Section 3 of the General Specifications - see <http://www.gs1.org/barcodes/technical/genspecs> .

- [4] European Standard EN 799: *Bar coding: Symbology Specification: Code 128*

The *International Symbology Specification for Code 128* published by AIM in 1999 has superseded EN 799.

See [http://www.aimglobal.org/standards/symbinfo/code\\_128\\_differences.asp](http://www.aimglobal.org/standards/symbinfo/code_128_differences.asp)



## Appendix 5: Application for a new or changed Facility Code

### Application for a new or changed Facility Code

<b>1. Identification of organisation or facility</b>	
Organisation:	
Postal Address: _____ _____	
Contact person:	
Telephone:	Fax:
E-mail:	

<b>2. Code elements</b>		
Note: The EBU will assign your Facility Code in accordance with the IBTN system specification and on the basis of the information you supply in this form. The EBU will respect the wishes of facilities where possible, but cannot guarantee to assign a facility's preferred code where this conflicts with other assignments that may already be registered. Please use a separate form for each facility.		
New code? <input type="checkbox"/>	Change to existing code or facility name? <input type="checkbox"/>	(tick one box)
Your ISO-2 country code:	Your existing Facility Code (if any):	
Your preferred Facility Code*:	*Facility Codes must comprise 3 characters, as defined in § 1.1.2 and as listed in Appendix 2	
Alternative Facility Code*:		
Name of organisation as it should appear in the list of registered Facility Codes:		

<b>Please mail or fax this form to:</b>	
EBU TECHNICAL,  17 Ancienne Route CH-1218 Grand-Saconnex (GE) Switzerland	Fax: +41 22 747 4000  Alternatively, send an e-mail with all the details requested in this form to: <a href="mailto:tech@ebu.ch">tech@ebu.ch</a>