EBU – TECH 3340

Metadata for the file exchange of advertising material (egtaMETA)

Source: EC-M, in association with

egta | association of television and radio sales houses

Status: Specification v1.0

Introduction

This is version 1.0 of the Metadata Schema for business-to-business file-based exchange of advertising material and it is the result of collaboration between the EBU (European Broadcasting Union) and egta (Association of television and Radio Sales Houses).

Nowadays, in an environment dominated by file-based production and file exchange (tapeless exchange using, for example, file transfer protocols over a network), accurate information on the editorial and technical nature of the material is vital. The technical answer to this requirement is called 'Metadata'.

Metadata is another name for 'information', which can be represented according to a commonly agreed and machine interpretable format (consisting of a Metadata schema and an associated language such as XML, which is used in this specification).

The Metadata schema detailed in the present specification is based on EBUCore (Tech 3293). It has been defined and validated by EBU and egta experts.

Contents

Metadata for the file exchange of advertising material (egtaMETA)

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EC-M	2010		

Keywords: Metadata, Schema, XML, Advertising.

1.   Overview

1.1   The EBU-egta egtaMETA Schema

1.1.1   Scope and Goals

The EBU/egta Metadata schema has been defined to exchange accurate information in a machine interpretable format (XML) in the context of tapeless file exchange of advertising material.

1.1.2   What is egtaMETA?

egtaMETA can be summarised as follows:

- It is primarily a set of semantically defined attributes considered to sufficiently describe advertising material and clustered as follows:
  - descriptive information (e.g. the title of the advertising spot);
  - exploitation information (e.g. what is the period during which it shall be used);
  - credits (inc. keys persons and companies involved in the creation, post-production and release of the advertising spot);
  - technical information (about the file format and its audio, video and data components).
- It is also a common representation format: XML (http://www.w3.org/XML/).

1.1.3   The schema

The XML schema, downloadable from the download zone section of this specification, takes precedence over the schema elements presented in other parts of this document.

2.   The egtaMETA model

The main features characterising advertising material are:

- The advertising spot itself as a combination of audio and video material;
- The background music, which participates to the identification of the product;
- The product that the advertising spot is making the promotion of;

- The brand under which the product is being commercialised;
- The contributors who have participated in the creation, production and production of the advertising spot.
- Key pictures which represent the content of the ad spot.

3.   The key element of egtaMETA

The following attributes shall be provided in order to provide a meaningful description:

Attribute name	Mandatory?
spot/title	Yes
spot/contributor/@typeLabel=″post-production″	Yes
spot/version or	
spot/description/@typeLabel=″version″	Yes
spot/format/duration	Yes
spot/product	Yes
spot/format/fileFormat	Yes
spot/format/filename	Yes
spot/format/audioFormat	Yes
spot/part/start (SOM)	Yes (if applicable)
spot/part/duration (EOM = start + duration)	Yes (if applicable)

4.   Schema Documentation

4.1   Introduction

The egtaMETA Metadata schema defines the semantic and syntax for a structured machine interpretable descriptions of advertising material.

This specification complies with XML 1.0 (http://www.w3.org/2001/XMLSchema).

The egtaMETA Metadata specification is based on the EBU Core (EBU Tech 3293), which has been updated to fulfil the requirements of egtaMETA. EBUCore is a Metadata schema developed for providing general descriptive and technical information about audiovisual material.

A representative example of the use of the egtaMETA schema is provided in an appendix to this document.

4.2   Namespace conventions

Namespaces should comply with the following conventions using date as a versioning qualifier, based on RFC5174 (EBU namespace).

Schema namespace:

- urn:ebu:Metadata-schema:SchemaName_YYYYMMDD (Month and Day are optional)

Example: urn:ebu:metadata-schema:egtaMETA_20100413

The 'ebu:' Unified Resource Namespace (URN) is registered by IANA (www.iana.org).

4.3   Date and time formats

4.3.1   ISO 8601 and IETF RFC 3339

It is particularly important to respect the syntax for date and time (http://www.w3.org/TR/NOTE-datetime and IETF RFC 3339), which can be summarised as follows:

Year:
  YYYY (e.g. 2010)

Year and month:
  YYYY-MM (e.g. 2010-07)

Complete date:
  YYYY-MM-DD (e.g. 2010-07-16)

where:

 YYYY = four-digit year

 MM   = two-digit month (01=January, etc.)

 DD   = two-digit day of month (01 through 31)

RFC 3339 (dateTime). Note that RFC 3339 is stricter than the W3C Date and Time Format. In particular, all portions of the date and time must be present, with the exception of the fractional portions of the second, which may be omitted.

Complete date plus hours and minutes:
   YYYY-MM-DDThh:mmTZD (eg 2010-07-16T19:20+01:00)

Complete date plus hours, minutes and seconds:
   YYYY-MM-DDThh:mm:ssTZD (eg 2010-07-16T19:20:30+01:00)

Complete date plus hours, minutes, seconds and a decimal fraction of a second:
   YYYY-MM-DDThh:mm:ss.sTZD (eg 2010-07-16T19:20:30.45+01:04)

where:

   YYYY = four-digit year

   MM   = two-digit month (01=January, etc.)

   DD   = two-digit day of month (01 through 31)

   hh   = two digits of hour (00 through 23) (am/pm NOT allowed)

   mm   = two digits of minute (00 through 59)

   ss   = two digits of second (00 through 59)

   s   = one or more digits representing a decimal fraction of a second

TZD = time zone designator (Z or +hh:mm or -hh:mm)

4.3.2   Video and Audio time point references

EBU/egta egtaMETA uses timecodes as defined by the SMPTE in specification 12M for times and durations.

Although the 'TimeCode' mechanism doesn't provide any certainty about the uniqueness of the point on the Timeline (the same TimeCode might be repeated) and neither it provides reliable information on Duration ('TimeCode' is not constrained to be continuous), this is the way on which legacy production systems rely for editing and for saving EDLs (Editing Decision Lists).

4.4   egtaMETA Documentation

4.4.1   Schema Document Properties

Target Namespace	urn:ebu:Metadata-schema:egtaMETA_2010
Element and Attribute Namespaces	▪ Global element and attribute declarations belong to this schema's target namespace. ▪ By default, local element declarations belong to this schema's target namespace. ▪ By default, local attribute declarations have no namespace.

4.4.2   Declared Namespaces

Prefix	Namespace
Default namespace	http://www.w3.org/2001/XMLSchema
egtaMETA	urn:ebu:metadata-schema:egtaMETA_2010
ebucore	urn:ebu:metadata-schema:ebucore_2010
dc	http://purl.org/dc/elements/1.1/
xml	http://www.w3.org/XML/1998/namespace

4.4.3   egtaMETA Root Element

The egtaMETA root element is the 'main' element of the EBU-egta advertising Metadata schema. It is of complex type egtaMETAType, which provides a set of attributes about the schema itself (name and version), a mechanism to identify instances (document Id, date last modified) and information on the author of the Metadata (MetadataProvider).

The egtaMETA root contains the spot element containing all the descriptive, exploitation and technical Metadata about the advertising spot.
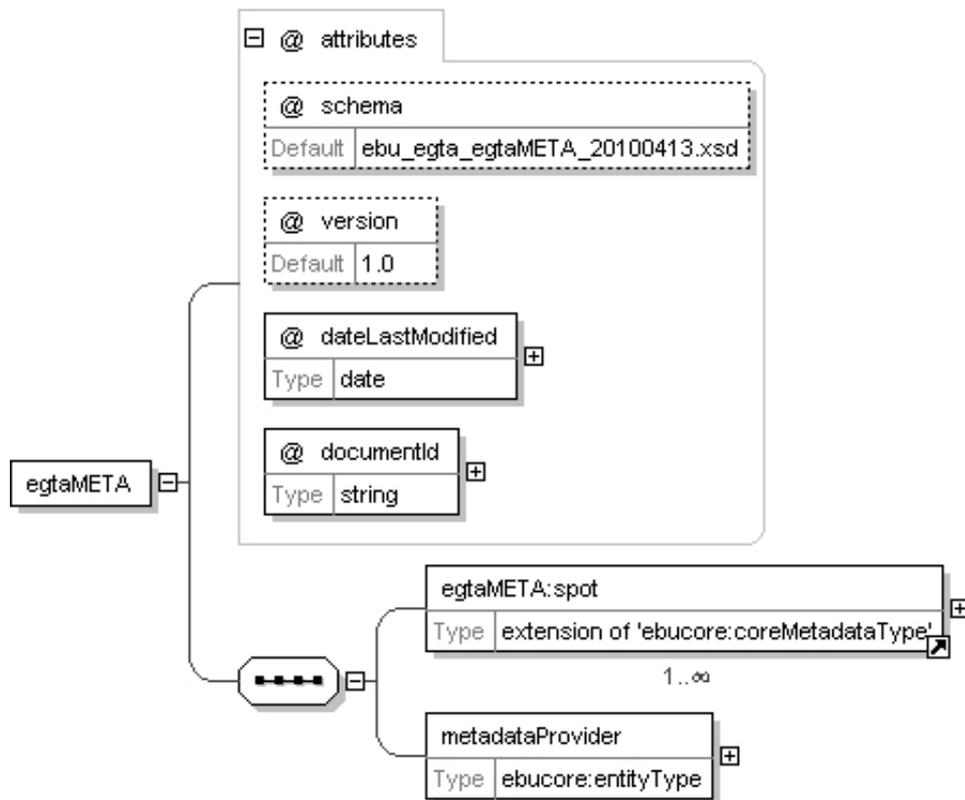
Figure 1: egtaMETAType

Element/Attribute name	Semantics
schema	A required attribute with the name of the schema
version	A required attribute giving the version of the schema
dateLastModified	A required attribute indicating the date of the last revision
documentId	A required attribute to give an identifier to an instance document (populated with data about the advertising spot)
metadataProvider	An optional element of complexType "entityType" providing information about the provider (identified as a person or organisation) of the Metadata information related to the advertising spot.
spot	A required element to collect descriptive, exploitation and technical Metadata about the advertising spot.

4.4.4   spot

The spot element provides general descriptive, exploitation and technical information about the advertising spot, the background music that it contains, the product, the brand and contributors. It also contains a container for one of more pictures associated to the ad spot. It is constructed as an extension of EBUCore's coreMetadataType to cover additional Metadata specific to advertising content.
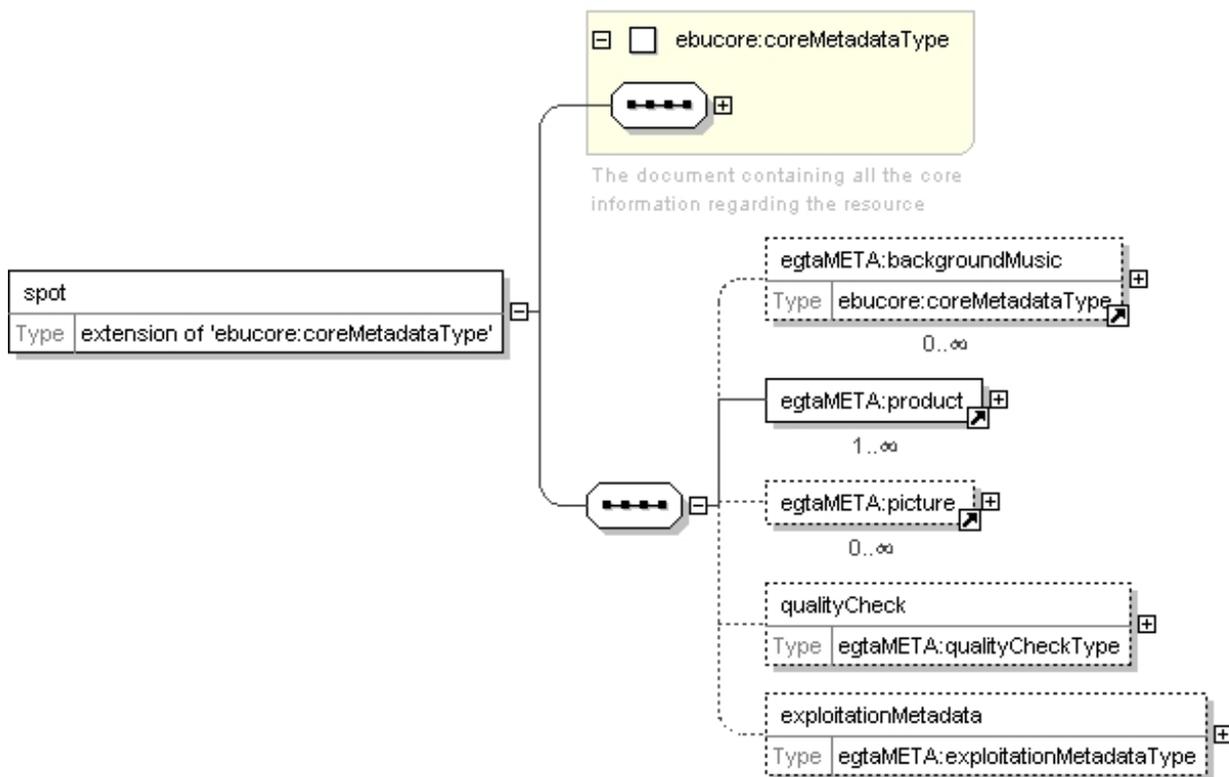
Figure 2: spotType

Element/Attribute name	Semantics
spot	An extension of the EBUCore coreMetadataType, which provides general descriptive and technical information about the advertising spot.
backgroundMusic	An element providing information on the music played during the advertising spot. It is also of EBUCore coreMetadataType, which provides general descriptive and technical information about the music tune.
product	An element to provide information on the product being advertised and its relation to a brand.
picture	An element to provide a container to embed a digital picture in a CDATA container complemented by a coreMetadataType descriptive pictureDescription element.
qualityCheck	An element providing information on the audio and video quality assessment of the advertising spot.
exploitationMetadata	An element to provide information on the conditions under which the advertising spot shall be exploited.

The EBUCore coreMetadataType is fully described in the EBUCore specification. However, the main features applicable to egtaMETA can be summarised as follows.

Figure 3: EBUCore coreMetadataType

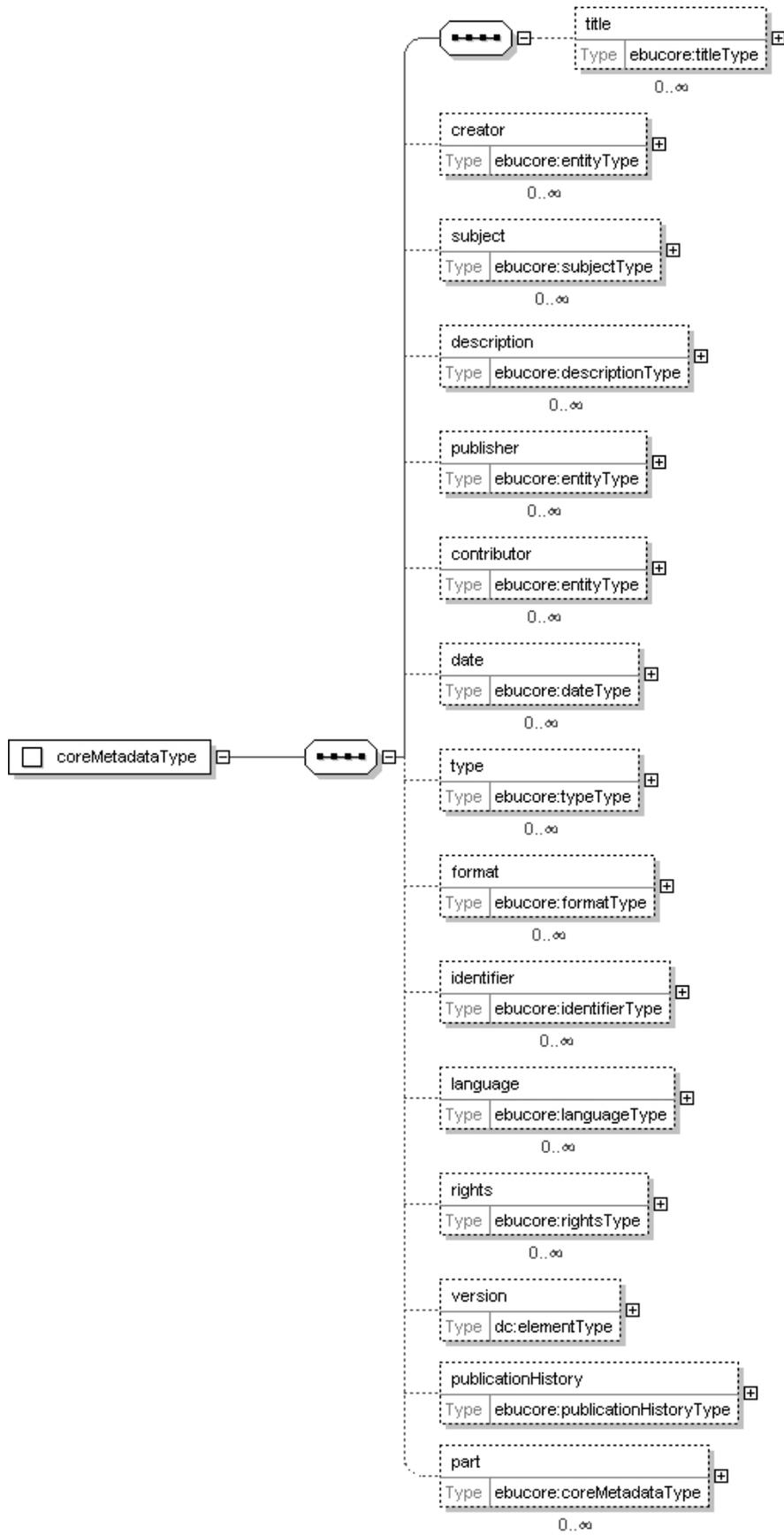| Element/Attribute name	Semantics
title	The title of the advertising spot.
creator	Information on the person or organisation involved in the creation of the advertising spot e.g. the creative agency.
subject	The subject is used to provide keywords.
description	EBUCore allows the definition of the type of descriptions appropriate to describe audiovisual resources. In the context of this specification, the agreed descriptions types are 'main', 'campaign' and 'spot text'. For more details, consult the example provided In appendix.
publisher	Information on the publisher of the background music.
contributor	EBUCore allows the definition of an infinite type of contributors participating in the development of audiovisual content as persons or organisations. In the context of this specification, the following key roles have been identified: post-production house, the director, the advertiser, the producer, voices/interviewers and actors/performers. For more details, consult the example provided In appendix.
date	The date element allows giving key time references like the date of creation of the advertising spot.
type	The type element is used to define the genre of the advertising spot.
format	The format element contains the Metadata about the audio, video and other technical characteristics of the advertising spot. For more details, consult the example provided In appendix.
identifier	EBUCore allows the definition of the type of identifiers appropriate to describe audiovisual resources. In the context of this specification, the agreed identifiers are: spotId, privateId and UUID. For more details, consult the example provided In appendix.
language	An element to specify the language used in the advertising spot, or in this version. EBUCore audioFormat allows a fine grain description of the allocation of language per audio track including audio description in compliance with EBU Recommendation R123, if required. EBUCore also supports the description of a captioningFormat or signing format.
rights	The rights element allows defining rights concerning the advertising spot or e.g. background music. The rightsHolder can be identified. A rightsClearanceFlag says if there remain open rights issue before exploitation. An identifier specific to rights (e.g. attributed by a particular party) can also be specified. For more details, consult the example provided In appendix.
version	The version element is not a primary requirement for egtaMETA but is available in EBUCore and can be used to provide additional information to describe via this may be a particular version of an advertising spot. For more details, consult the example provided In appendix.
publicationHistory	The publicationHistory element is not a primary requirement for egtaMETA but is available in EBUCore and can be used to report on which channel and at what time an advertising spot has been released.
part	The part element is of EBUCore coreMetadataType. In the context of this specification, it is only used to identify the start (Start of Message) and duration (derived End of Message is the SoM plus the duration in timecode) of the message (payload), e.g. after coulorbars if present. If the file only contains the message (e.g. without colourbars), it is not required to define the part.

The format element provides all the technical information about the audiovisual content.

dc:format	⊞
Type	elementType ↗

width	⊞
Type	extension of 'nonNegativeInteger'

height	⊞
Type	extension of 'nonNegativeInteger'

medium ⊞
0..∞

mimeType ⊞

videoFormat ⊞

audioFormat ⊞

fileFormat ⊞

captioningFormat	⊞
Type	extension of 'ebucore:languageType'

0..∞

signingFormat	⊞
Type	extension of 'ebucore:languageType'

0..∞

formatType ⊟ ●●●● ⊟

start ⊞

duration ⊞

fileSize	⊞
Type	nonNegativeInteger

filename	⊞
Type	string

locator	⊞
Type	string

technicalAttributeString	⊞
Type	extension of 'string'

0..∞

technicalAttributeInteger	⊞
Type	extension of 'integer'

0..∞

technicalAttributeFlag	⊞
Type	extension of 'boolean'

0..∞

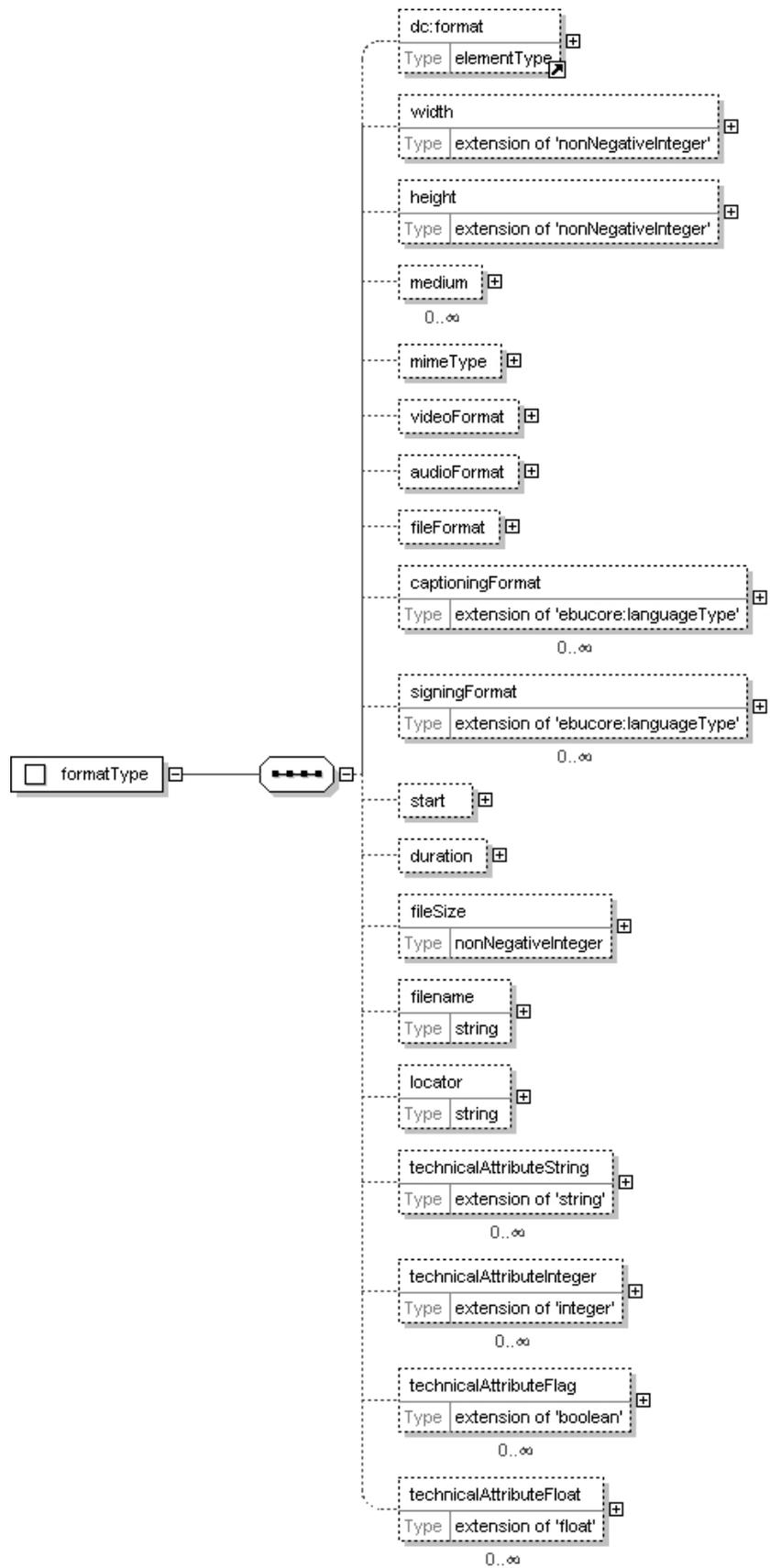|	
technicalAttributeFloat	⊞
Type	extension of 'float'

0..∞

Figure 4: EBUCore formatType

Element/Attribute name	Semantics
format	One element to provide generic technical information about the format of the material.
width	An element to define the width of the image as a number of pixels.
height	An element to define the height of the image as a number of lines.
aspectRatio	An element to define the aspect ratio of the image e.g. 4:3 or 16:9.
medium	This is not a primary requirement of this specification but EBUCore provide an element to define the form in which the material is available. In the context of this specification, it is a file.
mimeType	This is not a primary requirement of this specification but EBUCore provides an element to define the MIME type of the material e.g. audio, video, etc.
videoFormat	An element to provide detailed technical information on the format of the video if used in the advertising spot.
audioFormat	An element to provide detailed technical information on the format of the audio if used in the advertising spot.
fileFormat	An element to define the file/wrapper format e.g. MXF, MPEG-TS, OGG, MP4, etc.
captioningFormat	An element to provide detailed technical information on the format of captioning if used in the advertising spot.
signingFormat	An element to provide detailed technical information on the format of signing if used in the advertising spot.
start	An element to define the start time of the advertising spot. In the context of this specification, it is timecode 00:00:00:00. If colour bars have been inserted at the beginning of the clip, the start of the message (SOM) will be indicated using the same element in the description of a 'part'.
duration	An element to define the duration of the clip. In the context of this specification, it corresponds to the duration of the file. The duration of the message is defined in 'part'.
fileSize	An element to provide the size of the file in bytes.
filename	An element to provide the name of file containing the advertising spot.
locator	Am element to provide a locator (e.g. on server or disk) from which the material can be accessed / played.
technicalAttributeString	An element technicalAttribute of format string that allows users to implement a technical attribute of their choice using the type attrobuteGroup to specify the technical parameter under consideration.
technicalAttributeInteger	An element technicalAttribute of format integer that allows users to implement a technical attribute of their choice using the type attrobuteGroup to specify the technical parameter under consideration.
technicalAttributeFlag	An element technicalAttribute of format flag that allows users to implement a technical attribute of their choice using the type attributeGroup to specify the technical parameter under consideration.

The video format provides detailed information about the video components of the audiovisual resource. It is constructed around a flexible structure allowing the contextual definition of parameters in the form of strings, integers or flags.
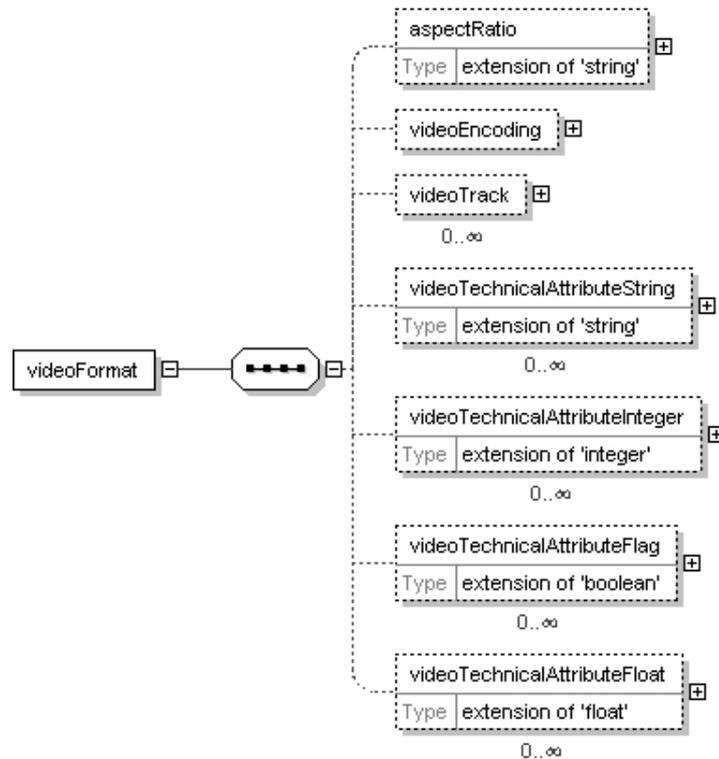
Figure 5: EBUCore videoFormatType

Element/Attribute name	Semantics
aspectRatio	The aspect ratio of the video expressed by a rational e.g. '16 9' for an aspect ratio of 16:9.
videoTrackEncoding	An element to define the compression format used for the video.
videoTrack	This element defines the type and provides a trackId and trackName attributed to each video track (e.g. in a multi-view system)
videoTechnicalAttributeString	EBUCore allows the definition of technical attributes appropriate to describe the video resource. In this attribute, values are expressed as strings. This is not used in this specification.
videoTechnicalAttributeInteger	EBUCore allows the definition of technical attributes appropriate to describe the video resource. In this attribute, values are expressed as integers. In the context of this specification, the technical attributes are the 'scanning format' and the 'frame rate'.
videoTechnicalAttributeFlag	EBUCore allows the definition of technical attributes appropriate to describe the video resource. In this attribute, values are expressed as boolean flags. In the context of this specification, the flags are the 'HD flag' and the 'colourbar flag'.
videoTechnicalAttributeFloat	EBUCore allows the definition of technical attributes appropriate to describe the video resource. In this attribute, values are expressed as float numbers.

The video can be composed of one or several tracks, each of which can be described using the video track element.
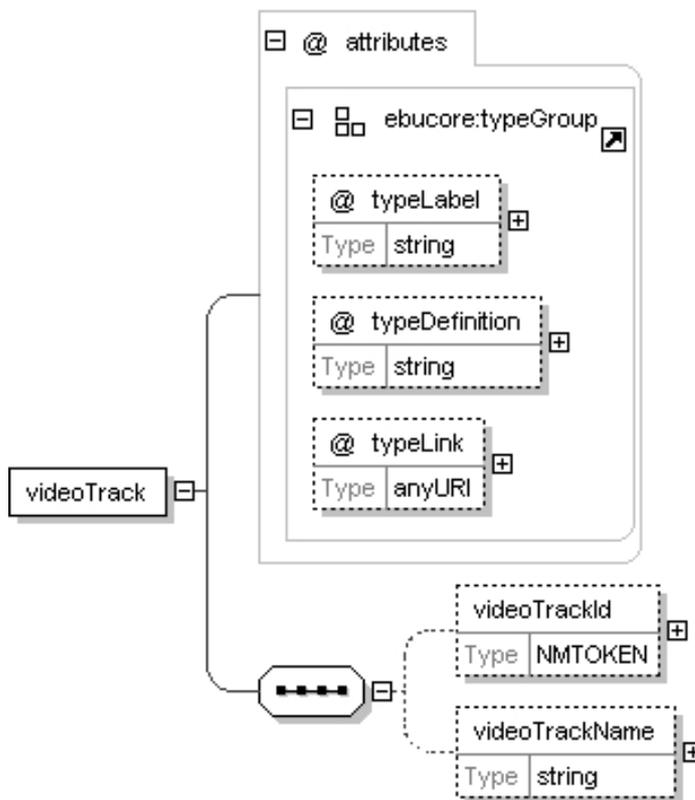
Figure 6: EBUCore videoTrack

Element/Attribute name	Semantics
attributes	Attributes of the type group to define the programme type associated with the video system.
videoTrackId	An identifier associated to the video track.
videoTrackName	A name attributed to the video track and reflecting its function/purpose.

The audio format provides detailed information about the audio components of the audiovisual resource. It is constructed around a flexible structure allowing the contextual definition of parameters in the form of strings, integers or flags.
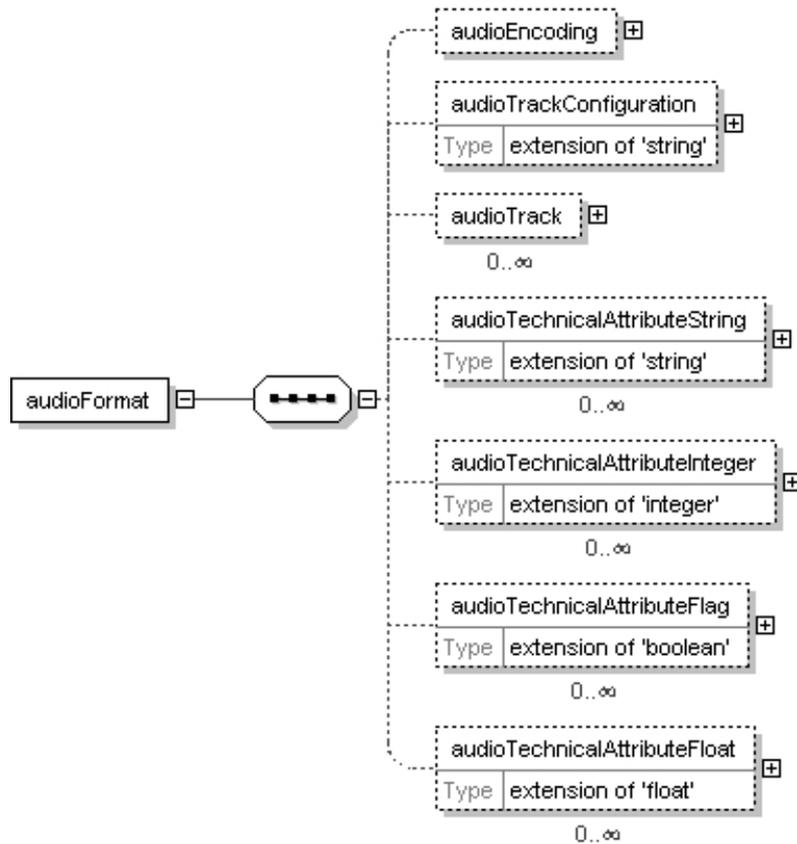
Figure 7: EBUCore audioFormatType

Element/Attribute name	Semantics
audioTrackEncoding	An element to define the compression format used for audio.
audioTrack	An element to define the type and providesa track-by-track description of the audio system used (trackId and trackName according to EBU R123 and also the language/purpose associated with each track)
audioTechnicalAttributeString	EBUCore allows the definition of technical attributes appropriate to describe the audio resource. In these attribute, values are expressed as strings. This is not used in the present specification.
audioTechnicalAttributeInteger	EBUCore allows the definition of technical attributes appropriate to describe the audio resource. In these attributes, values are expressed as integers. In the context of this specification, the technical attributes are the 'sample rate'.
audioTechnicalAttributeFlag	EBUCore allows the definition of technical attributes appropriate to describe the audio resource. In these attributes, values are expressed as boolean flags. This is not used in th e present specification.
audioTechnicalAttributeFloat	EBUCore allows the definition of technical attributes appropriate to describe the audio resource. In these attributes, values are expressed as float numbers.

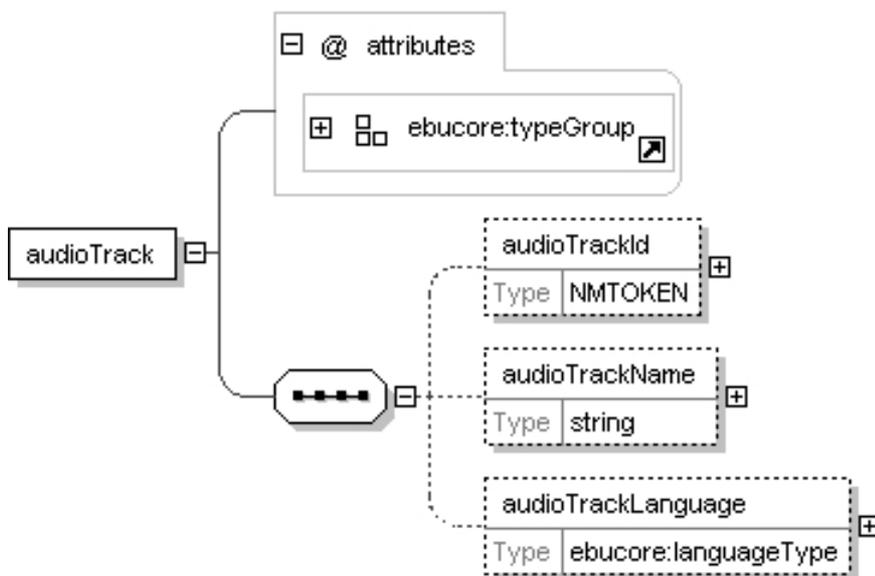The audio can be composed of one or several tracks, each of which can be described using the video track element.

Figure 8: EBUCore audioTrack

Element/Attribute name	Semantics
attributes	Attributes of the type group to define the programme type associated with the video system.
audioTrackId	An identifier associated to the audio track.
audioTrackName	A name attributed to the audio track and reflecting its function/purpose (EBU R123).
audioTrackLanguage	An element to define the language used on the audio track and its purpose (EBU R123).

4.4.5 backgroundMusic

It is generally the case that advertising spots are accompanied by background music or musical signatures. This element provides for descriptive and technical information about this content.
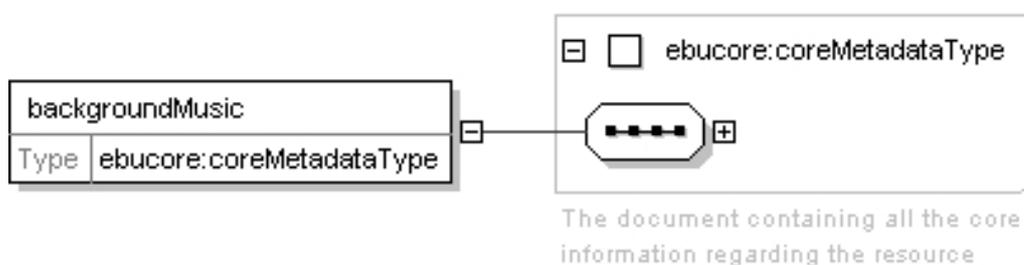

Figure 9: EBUCore backgroundMusic

Element/Attribute name	Semantics
backgroundMusic	An element of EBUCore to provide descriptive and technical information about the music/tune played during the advertising spot

4.4.6   product

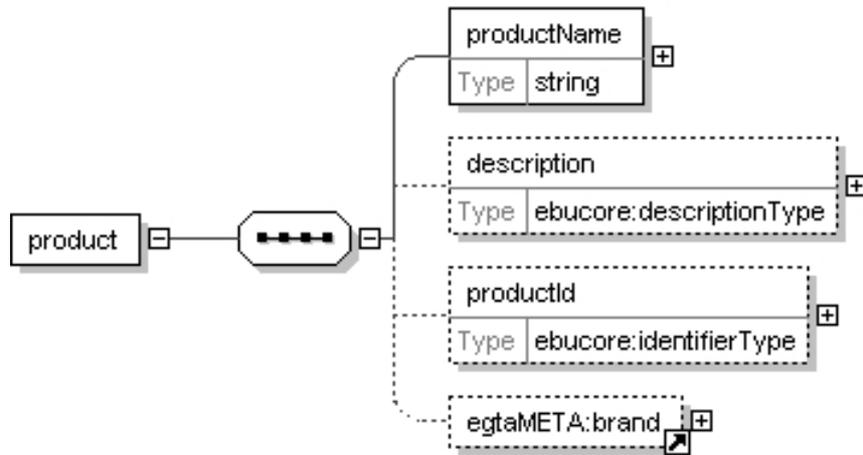Advertising spots are produced to promote products. This element provides some minimal information about this product.

Figure 10: product

Element/Attribute name	Semantics
productName	The name of the product presented in the advertising spot
productDescription	A description of the product presented in the advertising spot
productId	The identifier attributed to the product
brand	The brand to which the product is associated

Products are generally associated to brands. This element provides some minimal information about the brand associated with the product promoted in the advertising spot.
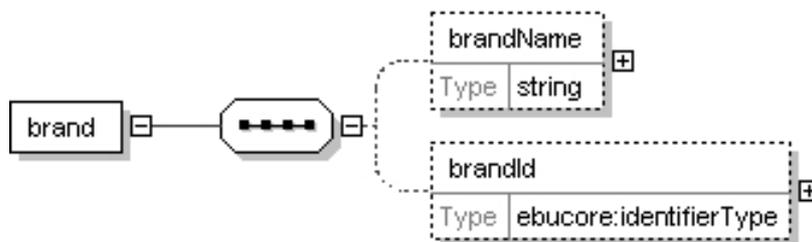

Figure 11: brand

Element/Attribute name	Semantics
brandName	The name of the brand associated to the product presented in the advertising spot
brandId	The identifier attributed to the brand

4.4.7   picture

It can happen that one or more pictures related to the advertising spot are delivered alongside the audiovisual spot.

The element picture has been designed to provide a detailed description of the picture as well as a CDATA container to embed a digital picture. Several pictures can be embedded in a file.
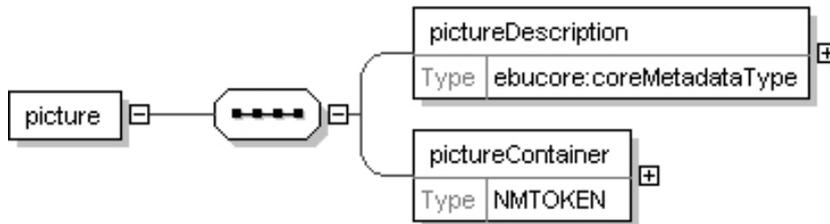

Figure 12: egtaMETA picture

Element/Attribute name	Semantics
pictureDescription	An element of coreMetadataType to provide detailed descriptive information about a picture. This is used to provide e.g. a title, description, link to an external file or hashcode (using the format/technicalAttributeString of type 'hashcode') to check the integrity of the data.
pictureContainer	An element with a CDATA container to embed a digital picture.

4.4.8   qualityCheck

In advertising, high quality delivery is an absolute requirement. For that reason, several tests are conducted on the audio and video after reception of the material and before it is exploited and published.
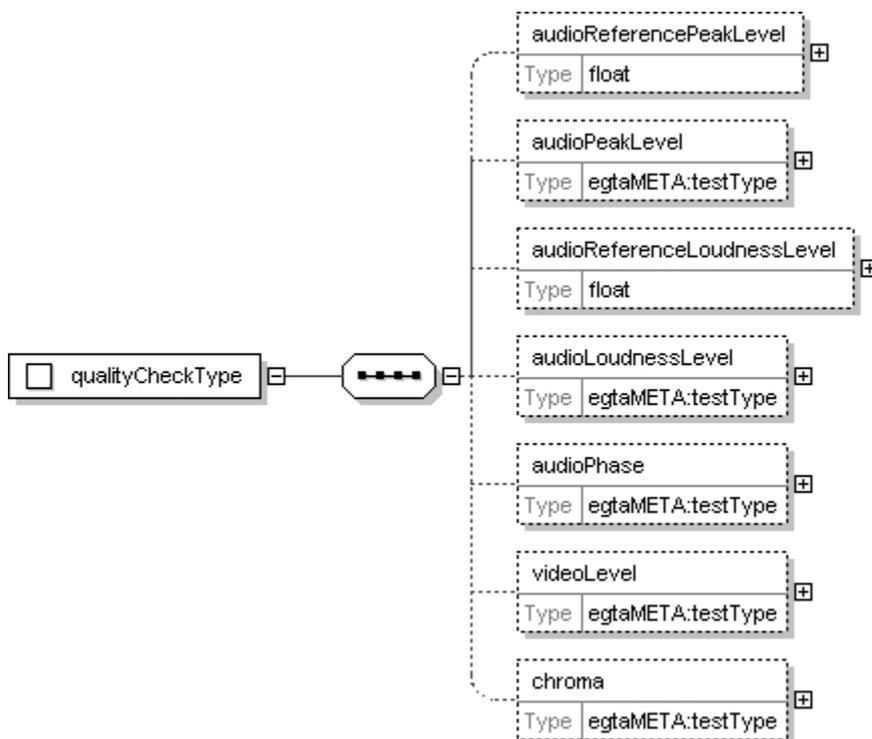

Figure 13: EBUCore qualityCheck

Element/Attribute name	Semantics
audioReferencePeakLevel	An element to specify the audio reference peak level against which quality will be assessed
audioPeakLevel	An element with the audio peak level measured during the test and the identification of the method used
audioReferenceLoudnessLevel	An element to specify the audio reference loudness level against which quality will be assessed
audioLoudnessLevel	An element with the audio loudness level measured during the test and the identification of the method used
audioPhase	An element with the audio phase measured during the test and the identification of the method used
videoLevel	An element with the video level measured during the test and the identification of the method used
chroma	An element with the chroma level measured during the test and the identification of the method used

4.4.9   exploitationMetadata

The exploitation of advertising is subject to strict rules, which can be expressed with the information represented in the exploitation Metadata.
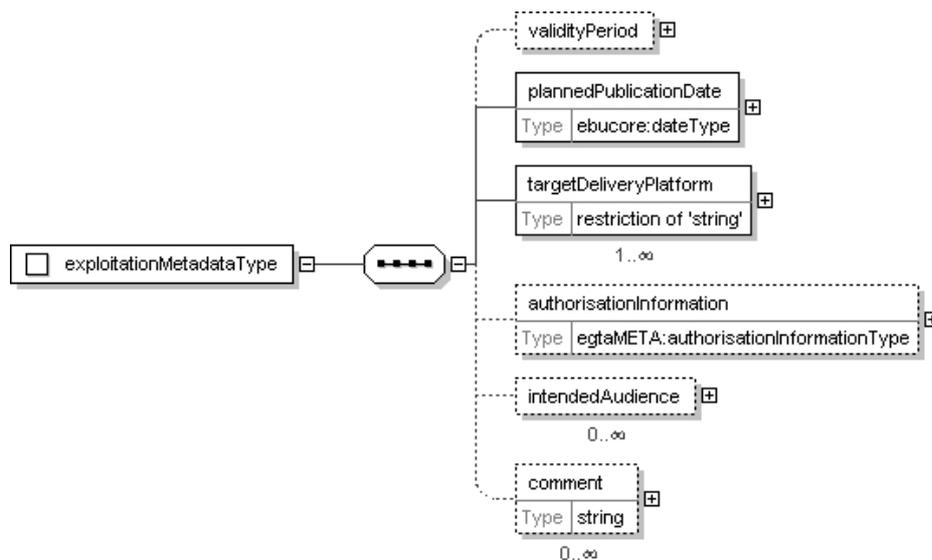
Figure 14: exploitationMetadataType

Element/Attribute name	Semantics
validityPeriod	The period of validity during which the advertising spot can be exploited
plannedPublicationDate	The date at which the spot is planned to be released / published
targetDeliveryPlatform	The media for which the spot has been designed for exploitation. The value is one of 'TV', 'radio', 'Internet', 'mobile', 'theatre' and 'outdoor'.
authorisationInformation	A clearanceFlag and an authorisationId validating the authorisation for exploitation
intendedAudience	The type of audience to whom the campaign is destined
comment	A comment field to bring additional information about exploitation of the advertising spot

It is important to have final authorisation before the spot is exploited. Once all exploitation issues have been cleared, an identifier is attributed to the spot as being ready for exploitation.
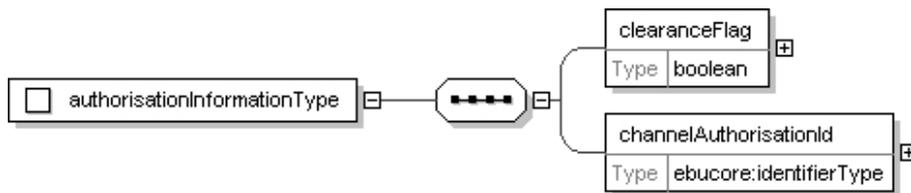
Figure 15: authorisationInformationType

Element/Attribute name	Semantics
clearanceFlag	If set to true, exploitation issues have been resolved and the spot is ready for exploitation
channelAuthorisationId	The Id attributed for exploitation once authorisation has been granted

4.4.10 basic types

4.4.10.1   entityType

The entity is a generic element that defines a contact/person and/or organisation as a participant playing a particular role.
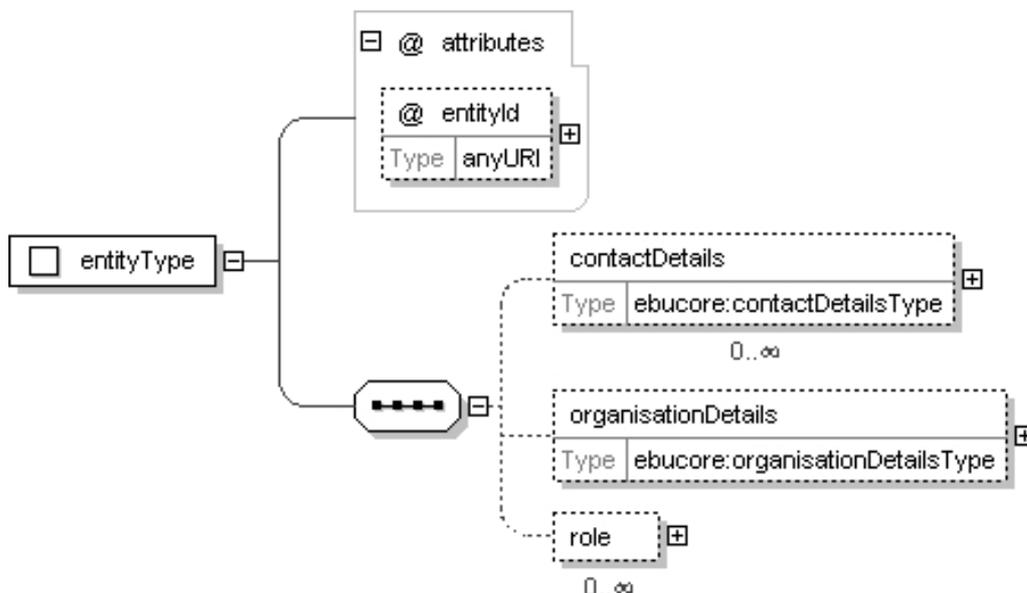

Figure 16: entityType

Element/Attribute name	Semantics
entityId	The identifier attributed to the entity
contactDetails	The details of a person associated with the entity
organisationDetails	The details of an organisation associated with the entity
role	The contribution brought by the entity, its role

4.4.10.2   contactDetailsType

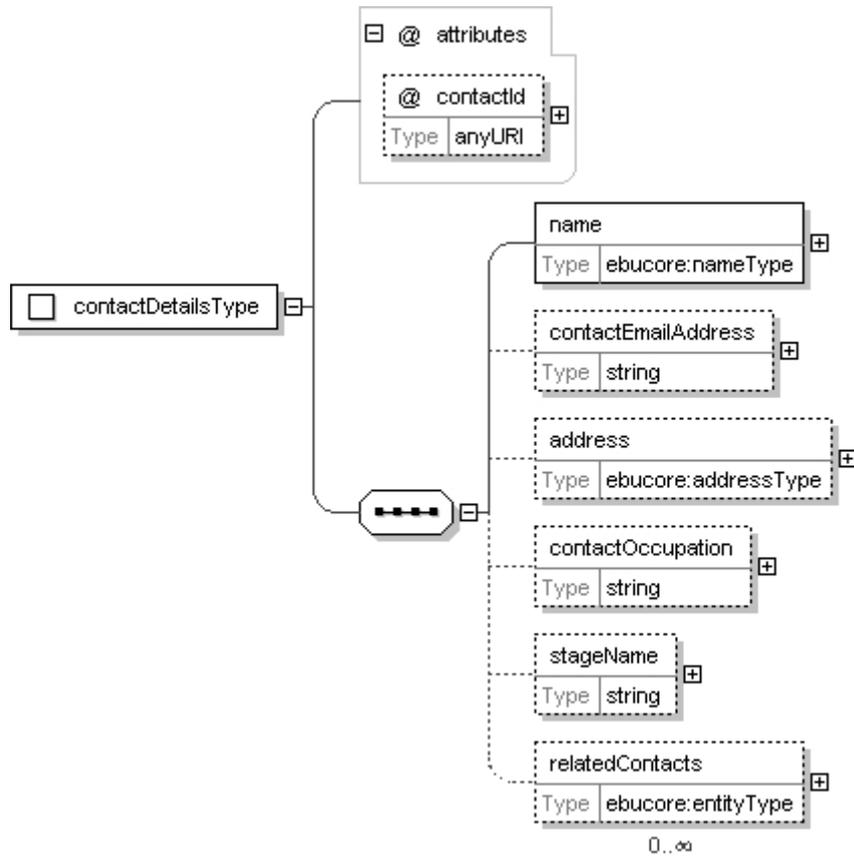The contact details provide minimum information about a person, and his/her own 'contacts'.

Figure 17: contactDetailsType

Element/Attribute name	Semantics
contactId	The identifier attributed to the entity
name	The name of the person
contactEmailAddress	The e-mail address at which the person can be contacted
address	The postal address of the person
contactOccupation	The occupation of the person
stageName	The name attributed to the person in the context of his/her contribution to the creation of the advertising spot e.g. the character name in the case of an actor.
relatedContacts	Contacts who can alternatively be contacted

4.4.10.3   nameType

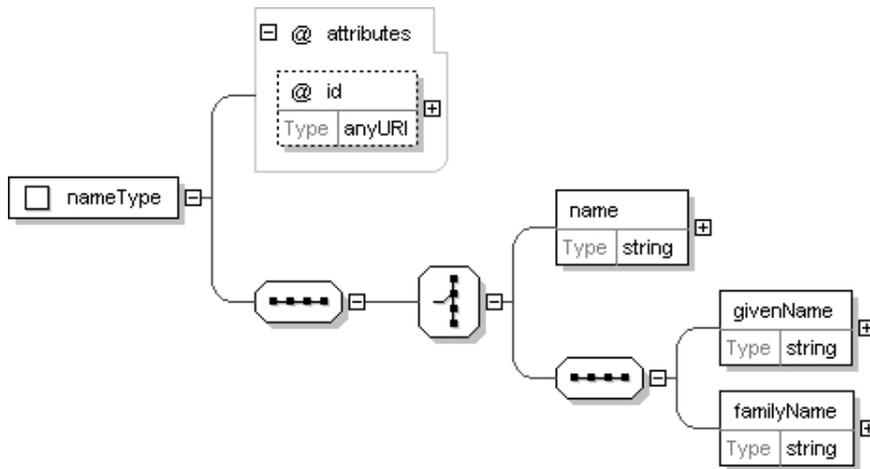The nameType is a representation of the most common elements that define a name in sufficiently structured detail.

Figure 18: nameType

Element/Attribute name	Semantics
id	The identifier attributed to a person / contact
name	The compound name of the person / contact / organisation. The other choice can be to give the given and family names separately in the case of a person.
givenName	Alternatively the given name
familyName	Alternatively the family name

4.4.10.4   organisationDetailsType

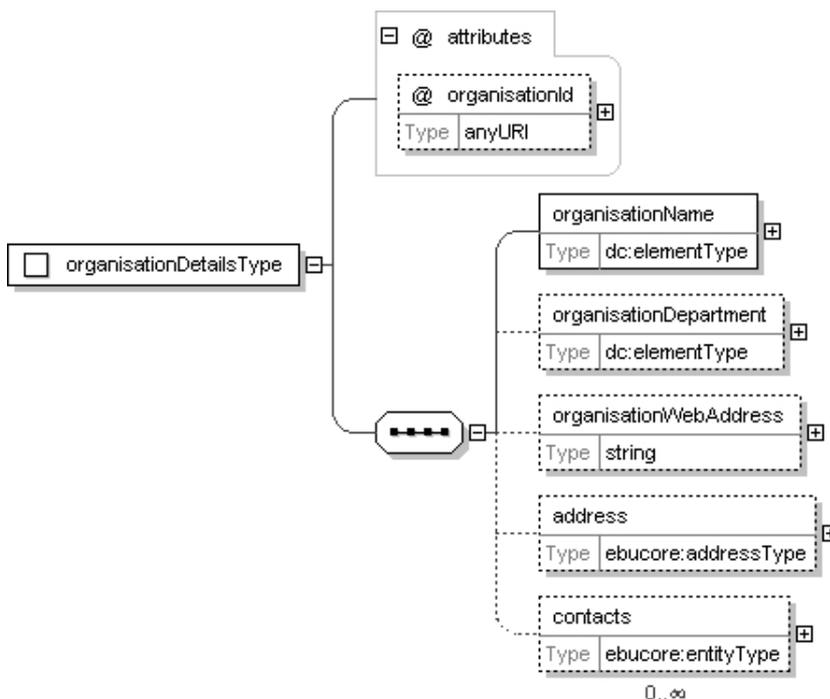The following information is the minimum Metadata needed to describe a contributing organisation.

Figure 19: organisationDetailsType

Element/Attribute name	Semantics
organisationId	The identifier attributed to the organisation.
organisationName	The name of the organisation
organisationDepartment	The department of the organisation contributing to the realisation and exploitation of the advertising spot
organisationWebAddress	The address of the website of the organisation
address	The postal address of the organisation
contacts	The contact points within the organisation

4.4.10.5   periodType

The period type is used to define the window of exploitation of the advertising spot.
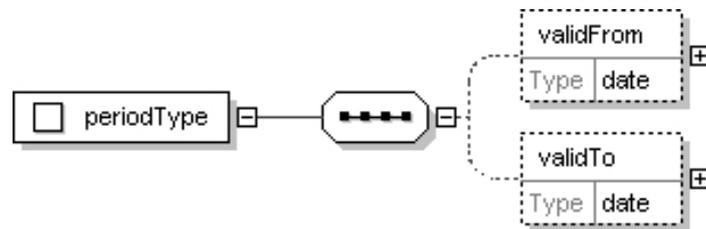
Figure 20: periodType

Element/Attribute name	Semantics
validFrom	The date from which the advertising spot can be exploited
validTo	The date after which exploitation must stop

4.4.10.6   testType
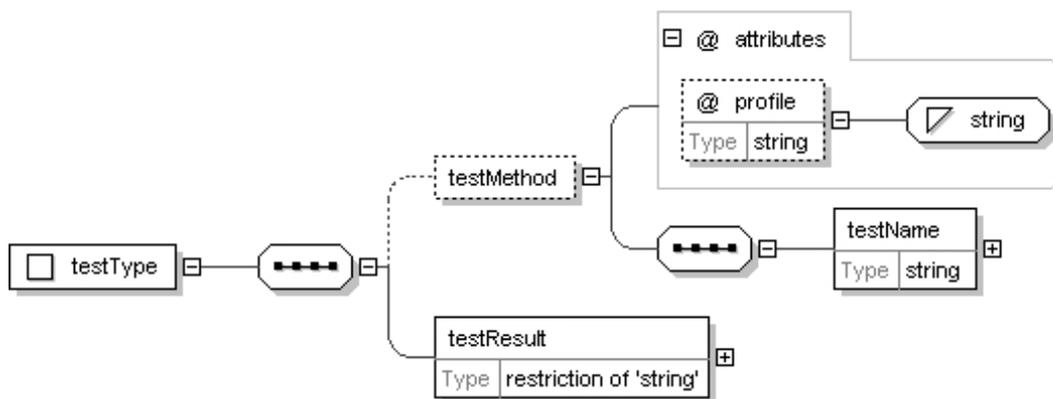
Figure 21: testType

Element/Attribute name	Semantics
testMethod	The profile and name of the method used for the test
testResult	The test result can have the following values: 'untested', 'passed', or 'corrected'.

4.4.10.7   timecodeType

The timecode is the format used to express time and duration in the context of this specification. It is defined as follows, which allow machine interpretation and format compliance testing.

```
<element name="timecode">
  <simpleType>
   <restriction base="string">
    <pattern value="[0-9][0-9]:[0-5][0-9]:[0-5][0-9]:[0-9][0-9]"/>
   </restriction>
  </simpleType>
</element>
```

4.4.10.8   TechnicalAttribute

EBUCore defines three types of technical attribute that can be customised to define properties specific to an application:

- technicalAttribute at the format level to define properties applicable to the entire resource
- videoTechnicalAttribute to define specific properties of the video
- audioTechnicalAttribute to define specific properties of the audio

For each of these properties, four levels of validation are proposed: string, integer, float and boolean.

Each property is actually defined by its associated typeLabel attribute.

In the case of string, there is also the possibility to define a format such as 'rational'.

4.4.10.9   rational

The egatMETA and other specification prefer to use the 'rational' format to preserve maximum precision instead of, for example, float for which the number of required decimal places would need to be specified.

The rational format is a string of two numbers (the numerator and the denominator) separated by a space character (' ').

The 'rational' format is used to express frame rates or aspect ratios, for example.

Examples:

- The frame rate 25 fps (frames per second) is represented by '1 25'
- The frame rate 29.97 fps is represented by '30 1.001'
- The aspect ratio 16:9 is represented by '16 9'

   NOTE: _In case edit units are used to determine start time and duration, it is important to ensure that coherence is maintained, i.e. the use of the numerator and denominator should be consistent._

4.4.10.10   publicationHistoryType

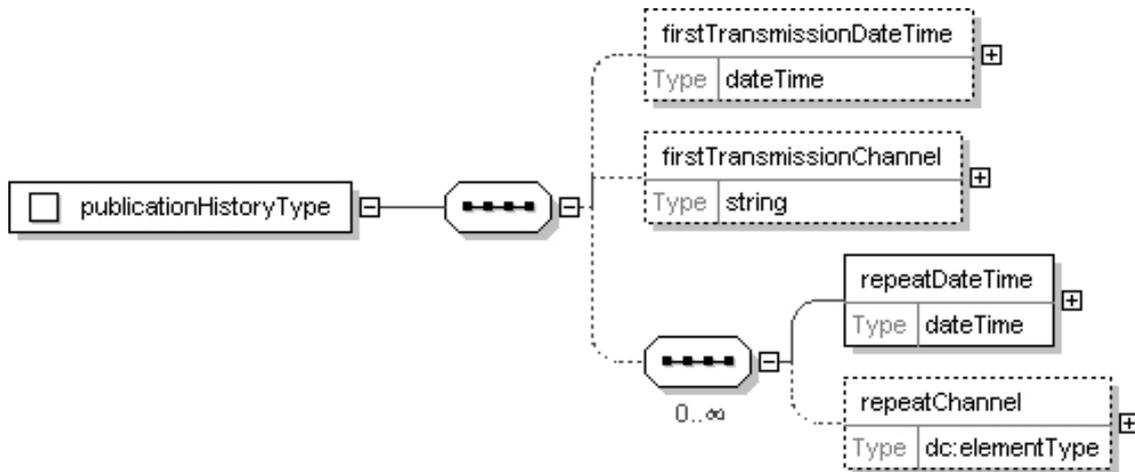The publication history element captures the exploitation history of an advertising spot.

Figure 22: publicationHistoryType

Element/Attribute name	Semantics
firstTransmissiondateTime	The date and time at which the spot has been released / published / broadcast for the first time
firstTransmissionChannel	The media on which the spot has been released / published / broadcast for the first time
repeatDateTime	The date and time of repeat exploitation
repeatChannel	The media of repeat exploitation

5.   Implementation Guidelines

The egtaMETA schema is based on EBUCore. The EBUCore schema offers a very flexible structure that allows the definition of application-specific properties. Attributes are used to define the type of properties for use in a particular application context.

EBUCore also provides an extensive list of technical properties, some of which can be customised using the mechanisms mentioned above. According to the type of material being used (e.g. 'audio' or 'audio & video', not all properties are applicable. As most technical properties are optional, a user only needs to pay attention that only relevant attributes are used.

Several examples on how to use the EBUCore schema are presented in the following sections.

5.1   Use of EBUCore's 'subject' property in egtaMETA

The *subject* property is used to list keywords. This is why the attribute typeLabel is set to 'keyword'.

5.2   Use of the 'description' property

The *description* property is used to provide different types of information. This is why the attribute typeLabel is set alternatively to 'description', 'campaign' or 'spot text'.

5.3   Use of the 'contributor' property

Some roles are predefined in EBUCore, such as *creator* or *publisher*. Most others are specific to egtaMETA and defined using the *contributor* property with an associated role.

The following *roles* are used for egatMETA: post-production, director, advertiser, producer, voice (or interviewer), actor, interpret, production company, composer.

In all cases, a *contributor* (and also a *creator* constructed on the same model) can be either a physical person (e.g. actor) or an organisation (e.g. post-production).

5.4   Use of the 'identifier' property

The *identifier* property is used to provide different types of identifiers. This is why the attribute typeLabel is set alternatively to 'spot id', 'private id', 'campaign id' or 'uuid' (Universal Unique ID).

5.5   Use of the 'format' property (technical properties)

EBUCore provides an extensive list of technical properties, which can be further customised for specific applications using the *videoTechnicalAttributes* (string, integer, flag) or *audioTechnicalAttributes* (string, integer, flag).

5.5.1   videoFormat

Several *videoTechnicalAttributes* are being used in egtaMETA define by the following attribute typeLabels:

- String: colourFormat, scanningFormat, frameRate (rational)
- Boolean (flag): HD flag, Colourbar flag

5.5.2   audioFormat

Several *audioTechnicalAttributes* are being used in egtaMETA define by the following attribute typeLabels:

- String: AudioMaxVULevelDB, AudioMaxPeakLevelDB, AudioLoudness
- Integer: Sample rate

5.6   SoM (Start of Message) and EoM (End of Message)

The SoM and EoM are used to specify the time reference of the first and last frame of the spot, which may follow e.g. a colourbar sequence of a few seconds.

When this is the case, the SoM and EoM should be defined using the 'start' and 'duration' properties of a part.

```xml
<ebucore:part>
  <ebucore:format>
    <!--SOM-->
    <ebucore:start>
      <ebucore:timecode>00:00:04:09</ebucore:timecode>
    </ebucore:start>
    <!--EOM=SOM + duration (duration from SOM)-->
    <ebucore:duration>
      <ebucore:timecode>00:00:15:32</ebucore:timecode>
```

```
        </ebucore:duration>
      </ebucore:format>
    </ebucore:part>
```

5.7 Customisation

The EBUCore schema associated to the egtaMETA schema provides much more than what is directly visible from this document. Users being able to parse the xml schemas will immediately notice the flexibility and richness offered by the schema.

In other words, what you need may already be there. Users are invited to contact 'metadata@ebu.ch'.

6. Maintenance

egtaMETA will be maintained by 'EBU Technical' and 'egta'. Suggestions for corrections or additions can be made at (metadata@ebu.ch).

Contributions will be subject to peer review by the EBU and egta Metadata experts.

7. Download Zone

The following documents are available for download:

Filename	Document description	Contents
egtaMETA_20100820.zip	Schema	egtaMETA schema EBUCore schema Dublin Core schema xml stub 'Bacardi' instance

The Bacardi instance file is provided as an example or 'reference implementation'. It shows how to use 'types', etc.

8. Useful links

- EBU Tech 3293 (http://tech.ebu.ch/docs/tech/tech3293v1_3.pdf)
- EBU Metadata (http://tech.ebu.ch/Metadata)
- IANA (http://www.iana.org)
- IETF (www.ietf.org)
    ◦ RFC 3339 – Date and Time (http://www.ietf.org/rfc/rfc3339.txt)
    ◦ RFC 5174 – EBU Namespace (http://www.ietf.org/rfc/rfc5174.txt)
- SMPTE (http://www.smpte.org)
    ◦ Timecode : SMPTE 12M
    ◦ MXF : SMPTE 377 M