

## P\_META 2.0

### Metadata Library

**Source: P/MAG**

**Status: Specification**

Geneva  
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## Introduction

This is version 2.0 of the P\_META Semantic Metadata Schema. EBU project groups P/Meta and P/MAG have been working since 1999 to create a standard vocabulary for information relating to programme information in the professional broadcasting industry.

In comparison to previous versions, this version of P\_META has a significant number of amendments including the attributions of qualifiers names to previously unnamed structures, the optimisation of the data structure as supported by XML, the separation of the original P\_META metadata set into a common toolkit (this document) and separate application specifications (e.g. for programme exchange). Although all functionalities provided by earlier versions of P\_META have been maintained, direct backward compatibility is not supported.

P\_META 2.0 has been developed in full awareness of other metadata sets developed by various industry bodies, for example:

- in SMPTE (<http://www.smpte.org>),
- ISO MPEG (<http://www.chiariglione.org/mpeg/>),
- Dublin Core (<http://dublincore.org/>),
- PBCore (<http://www.pbcore.org/>),
- AES (<http://www.aes.org>),
- TV Anytime (<http://www.etsi.org>, Business to Consumer) and
- ProMPEG.

P\_META has varying degrees of overlap with these other metadata sets.

With P\_META 2.0, the EBU has collated and defined a basic catalogue of data items that can be used as the building blocks for common information exchanges between content creators, distributors, archives and systems. These data items have been validated against real business transactions undertaken by EBU members.

P\_META will be managed and maintained by the EBU. It will be updated in response to user feedback.

### How may P\_META be used?

Broadcasters that have developed internal metadata solutions are invited to map their information to P\_META.

*Media Producers are invited to use P\_META as a semantic and grammatical basis for interface specifications and to implement P\_META in combination with specific engineering guidelines per application and use case.*

P\_META can simply be implemented 'as is' or extended to cover specific needs.

P\_META has been designed to be as flexible as possible in implementation while retaining consistency of meaning. It is technology-independent, and can be used in applications to create XML documents, to embed metadata in file formats such as MXF, BWF or in simple Word templates.

It is not intended for use in databases (although it could be used as a starting point) but it is designed to be the "language on the wire" in implementation. Its use of controlled terms defined in classification lists favours interoperability and allows data exchanges to be translated into different human languages without corruption.

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## P\_META 2.0

### Metadata Library

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PMC	2006	July 2007 (version 2.0)	

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## 1. Overview

### 1.1 The EBU P\_META Schema

#### 1.1.1 Scope and Goals

Metadata is essential to broadcasting.

The EBU P/Meta project, and more recently, the P/MAG group have played key roles in the development of P\_META. In so doing they have been faithful to the EBU's credo of promoting the use of existing standards, taking into particular account the point of view of broadcasters.

The result is a standard metadata library and toolkit that will be used to develop applications including programme exchange between broadcasters and possibly between production processes. It offers a way to share the meaning of electronic information necessary or useful for the business-to-business exchange and processing of programme-related information and content.

#### 1.1.2 What is P\_META?

P\_META represents the 'semantic layer', also known as the 'descriptive metadata layer', that is the exact definition and meaning of each element of description considered to be representative of common production practices. This definition is based on the business meaning and understanding of each concept and is expressed in terms of normal human language.

As a fundamental principle, the data analysis has been set to identify concepts or subjects which can be reused in a variety of applications, thus giving maximum precision in meaning, yet allowing maximum flexibility in the definition of the basic elements and data structures of the "P\_META metadata schema".

P\_META is a toolbox of common tools. The implementation of P\_META is realised through application-based specifications using these common tools and also by defining contextually relevant additional tools (within each application namespace) when required.

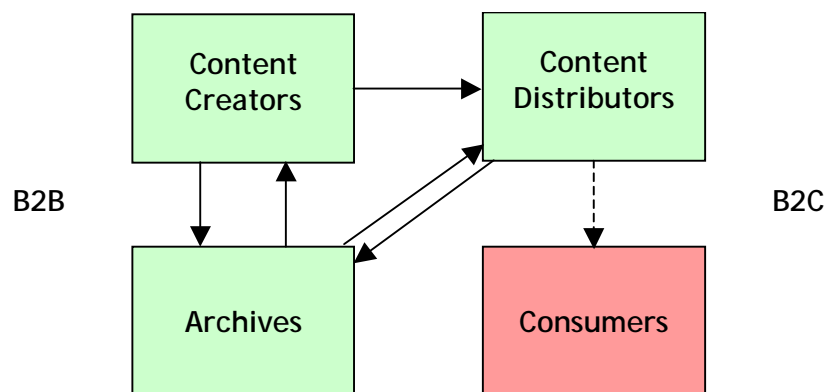
The 'technology layer' is concerned with the coding of information for storage and transmission of actual descriptions. The representation format of this version of P\_META is XML (<http://www.w3.org/XML/>).

This English version of the specification is the reference.

## 1.2 The Context

P\_META applies primarily to the business-to-business (B2B) environment although its interoperability with business-to-consumer (B2C) metadata is an essential feature.

As a broadcaster, if you can't find your content, you don't have it, and if users don't find your content, you simply do not exist for them!



### 1.2.1 Content Creators

These are involved in the Production of programmes and other content and make new material available for publication.

### 1.2.2 Archives

This addresses the preservation of existing material that can be re-used as originally produced, or may provide input material for new programmes. New techniques are being developed to generate metadata automatically while analysing content during the restoration and digitisation processes.

### 1.2.3 Content Distributors

These are involved in the publication and delivery of material to the consumers. They participate in interchanges in the business-to-consumer scenario. They are also known as Broadcasters or Content Aggregators.

### 1.2.4 Consumers

These are the users at the end of the media supply chain.

## 1.3 The Objective

P\_META is a library of common terms, data types and data structures representative of what are being used in production, to editorially identify, or technically describe content and associated rights. Such a library is often referred to as a toolbox.

This toolbox is used to develop independent applications relating to activities such as programme exchange or (WBU ISOG) transmission booking information.

How may P\_META be used?

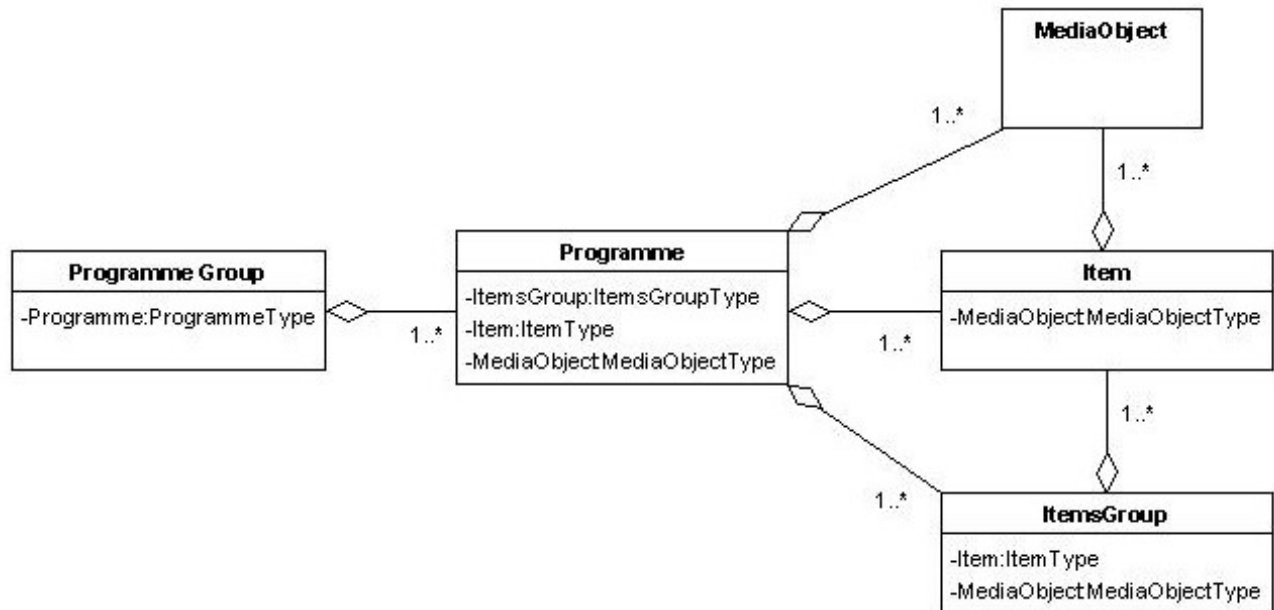
1. *Broadcasters that have developed internal metadata solutions are invited to seek maximum commonalty when mapping to P\_META and related applications.*

2. *Broadcasters that plan to implement metadata are invited to inspire themselves from P\_META to define their requirements and to prepare for discussing metadata with manufacturers, software developers and in particular asset management systems providers.*
3. *P\_META can simply be implemented 'as is' or extended to cover specific needs.*

As already mentioned, finding content is vital. Search and query plays an essential role that is entirely supported by metadata and by P\_META.

## 1.4 The P\_META Model

The content structure around which P\_META has been built can be summarised as follows.



### 1.4.1 Programme Group

This is a collection of programmes created by a commissioning or scheduling decision and joined by a common editorial concept.

### 1.4.2 Programme

This is an audiovisual work that has been defined and created by a commissioning decision.

### 1.4.3 Item Group

This is a collection of items grouped as part of a programme, or otherwise editorially related.

### 1.4.4 Item

This is a constituent part of a programme. It is identifiable as a separate entity or as part of a programme. It is, for example, delimited in time.

### 1.4.5 Media Object

This is a single component of a programme or item, of a single media type. It is continuous in time.

### 1.4.6 Other entities

Other entities are contextually defined in the definition layer. Such an important entity is the brand, which is a collection of assets with a recognisable collective identity. Another two important entities are the persons and organisations involved in the creation, management and control of content.

## 2. Schema Documentation

### 2.1 Introduction

The P\_META metadata toolbox is a library of common terms (a reference vocabulary), data types and data structures that are documented in the following sections.

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

### 2.2 Authoring conventions

The following mapping rules were agreed to convert original P\_META 1.2 notation into XML. These conventions should help users of P\_META 1.2 achieve a smoother transition to this latest version.

#### 2.2. From 'attribute names' to 'XML elements and attributes'

All P\_META attributes have been converted into XML elements or attributes. The naming convention of elements names shall be to start each word with an uppercase (capital) letter and not to use separators such as '\_'. Attributes names shall start with lowercase letters.

#### 2.2.2 From 'alternative' to 'choice'

The original P\_META (versions 1.1 and 1.2) notation used '|' as a means to signal that 'alternative' values (other options) could be provided.

For example,  $i|\dots|\dots|\dots|j$  is analysed as follows:

- 'i' indicates the minimum number of information elements that must be chosen from the alternatives ('i' must not exceed the total number of offered elements);
- 'j' indicates the maximum number of information elements that can be chosen from the alternatives ('j' must not exceed the total number of offered elements).
- An information element can be chosen once only.

If two or more information elements are included between two vertical bars separated by a colon ':', these information elements have to be considered as a single information element, as if they were included within a repeating group bounded to one, that is "0{..}1".

A qualifier name can be attributed if contextually required for clarification.

```

    <element name="Q" minOccurs="i" maxOccurs="j">
      <ComplexType>
        <Choice>
          [Q]i|E1|E2|..|En|j           <element ref= "E1"/>
          where i,j <= n           <====> <element ref= "E2"/>
          ...
          <element ref= "En"/>
        </Choice>
      </ComplexType>
    </element>

```

- $i=0$  means that no selection is required, which makes the element optional with `minOccurs = '0'`
- $i!=1$  means that at least 1 (or more) choice shall be made by repeating the element 'i' times without repeating previous selections
- $j!=1$  means that a maximum of 1 (or more) choice shall be made by repeating the element 'j-i' times without repeating previous selections.  $j \geq i$

### 2.2.3 From 'Repeating groups' to 'Complex Elements'

The original P\_META (versions 1.1 and 1.2) notation used '{...}' as a means to signal a repeating group, which ordered sequence of attributes should be repeated as defined by the parameter of the repeating group.

- In  $i\{\dots\}j$ , 'i' and 'j' define respectively the minimum and maximum numbers of repetitions on the information between brackets.
- $\{\dots\}n$  means that the group can be repeated indefinitely.
- $0\{\dots\}$  means the group is optional.

```

    <element name="Q" minOccurs="i" maxOccurs="j">
      <ComplexType>
        <Sequence>
          [Q]i{E1:E2:...}j           <====> <element ref= "E1"/>
          <element ref= "E2"/>
          ...
        </Sequence>
      </ComplexType>
    </element>

```

The 'group' is an XML sequence within an XML element qualified by an element name, and 'repetition' of the group is defined by the element cardinality (`minOccurs` and `maxOccurs`) boundaries.

## 2.2.4 From 'Sets' to 'Complex Types'

Original P\_META Sets clearly correspond to XML complex types.

```

SetName[
[Q1]E1:[Q2]E2:...[Qn]En <==>
]

```

```

<complexType name="SetName">
  <sequence>
    <element name="Q1" type="E1Type"/>
    <element name="Q2" type="E2Type"/>
    ...
    <element name="Qn" type="EnType"/>
  </sequence>
</complexType>

```

## 2.3 Reference Data

### 2.3.1 Enumerated Lists

In XML, enumerated lists like those used in P\_META 1.2 can easily be defined as shown in the following example :

```

<simpleType name="TitleType">
  <restriction base="string">
    <enumeration value="Original"/>
    <enumeration value="Main"/>
    <enumeration value="Working"/>
    <enumeration value="Alternative"/>
  </restriction>
</simpleType>

```

However, in P\_META 2.0 the systematic use of Classification Schemes has been preferred to support extensions independently of the schema.

### 2.3.2 Reference Data and Classification Schemes

Lists of controlled terms are handled by Classification Schemes structured to allow access to terms from a predefined hierarchical vocabulary list (thesaurus). Each list is uniquely identified by its namespace (URI<sup>1</sup>, in the form of a URN<sup>2</sup> or URL<sup>3</sup>) following the conventions given in section 2.4 and it can be extended independently of the P\_META schema.

A Classification Term or Sub-term is identified by a unique key (termID), a name, a definition and when applicable, a link to complementary references followed by management information:

```

<complexType name="TermType">
  <sequence>
    <element name="Name" type="TextualType"/>
    <element name="Definition" type="TextualType" minOccurs="0"/>
    <element name="Reference" type="TextualType" minOccurs="0"/>
  </sequence>
</complexType>

```

<sup>1</sup> Unique Resource Identifier - <http://tools.ietf.org/html/rfc3986>

<sup>2</sup> Unique Resource Namespace - <http://tools.ietf.org/html/rfc3986>

<sup>3</sup> Unique Resource Locator - <http://tools.ietf.org/html/rfc3986>

```

    <element name="ChangeComment" type="TextualType" minOccurs="0"/>
    <element name="ChangeVersionDate" type="date" minOccurs="0"/>
    <element name="FirstVersiondate" type="date" minOccurs="0"/>
    <element name="ValidityFlag" type="boolean"/>
    <element name="DeprecatedVersiondate" type="date" minOccurs="0"/>
    <element name="Term" type="pmeta:TermType" minOccurs="0"
      maxOccurs="unbounded"/>
  </sequence>
  <attribute name="termID" type="string"/>
</complexType>

```

The following TextualType has been defined to locally associate a language to any element of information.

```

<complexType name="TextualType">
  <simpleContent>
    <extension base="string">
      <attribute ref="xml:lang" use="optional"/>
    </extension>
  </simpleContent>
</complexType>

```

A Classification Scheme is a collection of terms. It is uniquely identified by its URI.

```

<complexType name="ClassificationSchemeType">
  <sequence>
    <element name="Alias" type="string" minOccurs="0">
    <element name="Term" type="pmeta:TermType" minOccurs="1"
      maxOccurs="unbounded">
  </sequence>
  <attribute name="uri" type="anyURI" use="required"/>
  <attribute ref="xml:lang" default="en" use="optional"/>
</complexType>

```

This representation is compatible with instance of other classification schemes developed in other important groups such as MPEG-7, TV-Anytime and DVB.

**Example:**

```

<ClassificationScheme uri="urn:ebu:metadata:cs:ContentCS:2006">
  <!--#####
  EscortGenreCS
  Definition:
  <!--##### -->
  <Alias>EscortGenre</Alias>
  <Term termID="1">
    <Name xml:lang="en">News</mpeg7:Name>
    <Name xml:lang="fr">Actualités</mpeg7:Name>

```

```

<Definition xml:lang="en"></Definition>
<Definition xml:lang="fr"></Definition>
  <Term key="1.1">
    <Name xml:lang="en">Weather Report</mpeg7:Name>
    <Name xml:lang="fr">Bulletin meteo</mpeg7:Name>
    <Definition xml:lang="en"></Definition>
    <Definition xml:lang="fr"></Definition>
  </Term>
  <Term key="1.2">
    <Name xml:lang="en">International Affairs</mpeg7:Name>
    <Name xml:lang="fr">Actualités internationales</mpeg7:Name>
    <Definition xml:lang="en"></Definition>
    <Definition xml:lang="fr"></Definition>
  </Term>
  <Term key="1.3">
    <Name xml:lang="en">Breaking News</mpeg7:Name>
    <Name xml:lang="fr">Bulletin spécial</mpeg7:Name>
    <Definition xml:lang="en"></Definition>
    <Definition xml:lang="fr"></Definition>
  </Term>
</Term>
<!--etc.-->
</ClassificationScheme>

```

Classification Schemes are delivered using Classification Scheme tables that also allow associating Aliases to Classification Scheme URIs.

```

<complexType name="ClassificationSchemeTableType">
  <sequence>
    <element name="CSAlias" minOccurs="0" maxOccurs="unbounded">
      <complexType>
        <attribute name="alias" type="NMTOKEN"/>
        <attribute name="href" type="anyURI"/>
      </complexType>
    </element>
    <element name="ClassificationScheme" type="pmeta:ClassificationSchemeType"
      minOccurs="0" maxOccurs="unbounded"/>
  </sequence>
</complexType>

```

In the schema, terms are referred to as 'codes', which shall correspond to each term's 'termID' associated to the Classification Scheme URN or URL. Each termID can take any form such as text or structured numbering to reflect a hierarchy, as long as it is unique. In the case of URNs, the separator to be used is the ':', while it is the '#' in the case of URLs.

To resolve the reference to a name or a definition for a term, a processor may use the URI value specified by the anyURI attribute. A conforming parser uses that URI to resolve the termID reference to a resource, whether physical or logical, using, for example, the

"urn:ebu:metadata:cs:*ClassificationSchemeName*:termID" form for a URN. Once the termID has been resolved, the term name, definition and other management information can be accessed.

It is an implementation choice to replace URIs by aliases to provide a more concise, application-specific way of referring to classification terms as long as a look-up table is provided describing the relationship between Aliases and URIs (URNs or URLs).

**Example of a URN:**

- If 'S1' is the alias for "urn:ebu:metadata:cs:ContentCS:2006", in the above example 'News:Weather Report' will be accessed through "S1:1.1" and the fully qualified term path is: "urn:ebu:metadata:cs:ContentCS:2006:1.1".

It is an important implementation requirement to ensure that these resources are accessible by the metadata recipient. In the case of a URL, it must be ensured that the presence of the file is maintained at the declared location. In the case of a URN, the actual scheme location must be provided for interoperability purposes.

The following table offers a mapping from available thesaurus to relevant P\_META codes.

**Table 1: List of reference data**

P_META Codes	Classification Scheme Name
AudienceScoreRecordingTechniqueCode	<a href="#">ebu:AudienceScoreRecordingTechniqueCodeCS</a>
AudioCompressionCode	<a href="#">ebu:AudioCompressionCodeCS</a> , <a href="#">dvb:AudioCodecCS.xml</a> ( <a href="http://www.dvb.org/metadata/index.html">http://www.dvb.org/metadata/index.html</a> ), <a href="#">mpeg:AudioCodingFormatCS.xml</a> , ( <a href="http://www.dvb.org/metadata/index.html">http://www.dvb.org/metadata/index.html</a> )
AudioFormatCode	<a href="#">ebu:AudioFormatCodeCS</a>
ClassificationSchemeCode	<a href="#">ebu:ContentAlertSchemeCodeCS</a>
ClassificationTermCode	<a href="#">tva:AtmosphereCS</a> , <a href="#">tva:ContentAlertCS</a> , <a href="#">tva:ContentCommercialCS</a> , <a href="#">ebu:ContentGenreCS</a> , <a href="#">tva:ContentCS</a> , <a href="#">ebu:IPTCSubjectCodeCS</a> , <a href="#">ebu:EscortCS</a> , <a href="#">ebu:IntentionCodeCS</a> , <a href="#">tva:IntentionCS</a> , <a href="#">tva:IntendedAudienceCS</a> , <a href="#">ebu:IntendedAudienceCodeCS</a> , <a href="#">ebu:EditorialFormatCodeCS</a> , <a href="#">tva:EditorialFormatCS</a> , <a href="#">ebu:ReferenceAttributeCS</a> , (user defined - template only), <a href="#">ebu:ProgrammeGroupTypeCS</a>
ColourCode	<a href="#">ebu:ColourCodeCS</a>
ContractTypeCode	<a href="#">ebu:ContractTypeCodeCS</a>
CountryCode	<a href="#">ebu:Iso3166CountryCodeCS</a>
CurrencyCode	<a href="#">ebu:Iso4217CurrencyCodeCS</a>
DataCompressionCode	<a href="#">ebu:FileFormatCS</a>
DeviceTypeCode	<a href="#">ebu:DeviceTypeCodeCS</a>
EditorialControlCode	<a href="#">ebu:EditorialControlCodeCS</a>
FileFormatTypeCode	<a href="#">ebu:FileFormatCS</a>
GraphicUsageTypeCode	<a href="#">ebu:GraphicUsageTypeCodeCS</a>
IdentifierTypeCode	<a href="#">ebu:IdentifierTypeCodeCS</a> , <a href="#">ebu:OrganisationIdentifierTypeCodeCS</a> ,

P_META Codes	Classification Scheme Name
	<a href="#">ebu:StorageIdentifierTypeCode</a>
LanguageCode	<a href="#">ebu:Iso639_1LanguageCodeCS</a> , <a href="#">ebu:Iso639_2LanguageCodeCS</a>
LanguageUsageCode	<a href="#">ebu:LanguagePurposeCodeCS</a>
LiveActionCode	<a href="#">ebu:LiveActionCodeCS</a>
MaterialRelationshipTypeCode	<a href="#">tva:HowRelatedCS</a>
MediaObjectTypeCode	<a href="#">ebu:MediaTypeCS</a>
OrganisationTypeCode	<a href="#">ebu:OrganisationTypeCodeCS</a>
OriginationCode	<a href="#">ebu:EscortCS</a> , <a href="#">tva:OriginationCodeCS</a>
PictureDisplayFormatCode	<a href="#">ebu:PictureDisplayFormatCodeCS</a>
PictureIntendedDisplayAspectRatio	<a href="#">ebu:VisualAspectRatioCS</a>
PictureOriginalFramingAspectRatio	<a href="#">ebu:VisualAspectRatioCS</a>
ProgrammeGroupTransmissionCycleCode	<a href="#">ebu:ProgrammeGroupTransmissionCycleCode</a>
RightGrantOfRightsMediaCode	<a href="#">ebu:RightGrantOfRightsMediaCodeCS</a>
RightTypeCode	<a href="#">ebu:RightTypeCodeCS</a>
RoleTypeCode	<a href="#">ebu:RoleCodeCS</a> (superseding <a href="#">ebu:EscortRoleCS</a> ), <a href="#">mpeg7:RoleCS</a> , <a href="#">tva:RoleCS</a> (including <a href="#">mpeg7:RoleCS</a> )
SignLanguageCode	<a href="#">ebu:SignLanguageCodeCS</a>
SIUnitOfMeasureCode	<a href="#">ebu:SIUnitOfMeasureCodeCS</a> (user defined)
StorageTypeCode	<a href="#">ebu:StorageMediaTypeCode</a> (extension to IBTN, EBU Tech Doc 3279 - <a href="http://www.ebu.ch/CMSimages/en/tec_doc_t3279-2004_tcm6-15016.pdf">http://www.ebu.ch/CMSimages/en/tec_doc_t3279-2004_tcm6-15016.pdf</a> )
TerritoryCode	<a href="#">ebu:UNTerritoryCodeCS</a> , <a href="#">ebu:Iso3166CountryCodeCS</a>
TextUsageTypeCode	<a href="#">ebu:TextUsageTypeCodeCS</a>
VideoCompressionTypeCode	<a href="#">ebu:VideoCompressionCodeCS</a> , <a href="#">dvb:VideoCodecCS</a> ( <a href="http://www.dvb.org/metadata/index.html">http://www.dvb.org/metadata/index.html</a> ) <a href="#">mpeg:VisualCodingFormatCS</a> ( <a href="http://www.dvb.org/metadata/index.html">http://www.dvb.org/metadata/index.html</a> )
VideoFrameRate	<a href="#">ebu:VideoFrameRateCS</a>
VideoSamplingHierarchyCode	<a href="#">ebu:VideoSamplingHierarchyCodeCS</a>

- \* Dublin Core
- \*\* PBCore
- \*\*\* Tribune Media Service
- \*\*\*\* United Nations

## 2.4 Namespace conventions

Namespaces should comply with the following conventions using date as a versioning qualifier.

Schema namespace:

- urn:ebu:metadata:SchemaName:YYYYMMDD e.g.  
urn:ebu:metadata:EBU\_PMETAv020001:20060701

Reference Data and Classification Scheme (CS) namespaces:

- urn:ebu:metadata:cs:ClassificationSchemeName:YYYYMMDD e.g.  
urn:ebu:metadata:cs:RoleCS:20060701

The 'ebu:' Unified Resource Namespace (URN) is being registered by IANA ([www.iana.org](http://www.iana.org)).

## 2.5 Date and Type Formats: ISO 8601 and W3C / XML

P\_META uses most key XML simple datatypes (<http://www.w3.org/TR/xmlschema-2/>) e.g. date (ISO 8601), time (ISO 8601), string, int (integer), boolean, nonNegativeInteger, float.

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

Year:

YYYY (e.g. 1997)

Year and month:

YYYY-MM (e.g. 1997-07)

Complete date:

YYYY-MM-DD (e.g. 1997-07-16)

Complete date plus hours and minutes:

YYYY-MM-DDThh:mmTZD (e.g. 1997-07-16T19:20+01:00)

Complete date plus hours, minutes and seconds:

YYYY-MM-DDThh:mm:ssTZD (e.g. 1997-07-16T19:20:30+01:00)

Complete date plus hours, minutes, seconds and a decimal fraction of a second

YYYY-MM-DDThh:mm:ss.sTZD (e.g. 1997-07-16T19:20:30.45+01:00)

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)

It is not specified how many digits may be used to represent the decimal fraction of a second. An adopting standard that permits fractions of a second must specify both the minimum number of digits (a number greater than or equal to one) and the maximum number of digits (the maximum may be stated to be "unlimited").

Times are expressed in UTC (Coordinated Universal Time), with a special UTC designator ("Z"), or times are expressed in local time, together with a time zone offset in hours and minutes. A time zone offset of "+hh:mm" indicates that the date/time uses a local time zone which is "hh" hours and "mm" minutes ahead of UTC. A time zone offset of "-hh:mm" indicates that the date/time uses a local time zone which is "hh" hours and "mm" minutes behind UTC. A standard referencing this profile should permit one or both of these ways of handling time zone offsets.

Durations are represented by the format P[n]Y[n]M[n]DT[n]H[n]M[n]S (or P[n]Y[n]W[n]DT[n]H[n]M[n]S to use the week format). In this representation replace [n] with the appropriate number for the element that follows it (leading zeros are optional but may clarify ambiguous durations). The capital letters ('P', 'Y', 'M', 'W', 'D', 'T', 'H', 'M' and 'S') are used as they are and not replaced.

#### Example:

"P3Y6M4DT12H30M0S" defines "a period of three years, six months, four days, twelve hours, thirty minutes, and zero seconds".

Elements may be omitted if their value is zero. To resolve ambiguity, "P1M" is one month and "PT1M" is one minute. The smallest value used may also have a decimal fraction, as in "P0,5Y" to indicate half a year. The number of seconds can include decimal digits to arbitrary precision.

## 2.6 P\_META Documentation

### 2.6.1 Schema Document Properties

Target Namespace	urn:ebu:schema:pmeta:2007
Element and Attribute Namespaces	<ul style="list-style-type: none"> <li>▪ Global element and attribute declarations belong to this schema's target namespace.</li> <li>▪ By default, local element declarations belong to this schema's target namespace.</li> <li>▪ By default, local attribute declarations have no namespace.</li> </ul>

### 2.6.2 Declared Namespaces

Prefix	Namespace
Default namespace	http://www.w3.org/2001/XMLSchema
pmeta	urn:ebu:schema:pmeta:2007
xml	http://www.w3.org/XML/1998/namespace

### 2.6.3 Elements, Simple Types and Complex Types: Definitions

All the definitions can be found in the [P-META schema documentation](#)

### 3. Implementation Guidelines

Several aspects of the specification are left to the appreciation of the implementer (e.g. regarding the implementation of classification schemes or mapping to pre-existing in-house metadata schemas). It is foreseen that feedback will be provided, which would be reflected in future implementation guidelines.

It is also expected that application specific guidelines will be provided as part of the different application-based specifications.

### 4. Maintenance

P\_META will be maintained by the EBU and suggestions for corrections or additions can be made at ([metadata@ebu.ch](mailto:metadata@ebu.ch)). EBU members can also provide feedback via the EBU Technical Department's wiki (<http://wiki.ebu.ch/technical/P/MAG>).

Contributions will be subject to peer review by the metadata experts participating in P/MAG ([http://www.ebu.ch/en/technical/projects/p\\_mag.php](http://www.ebu.ch/en/technical/projects/p_mag.php)), a specialised Project Group of the Production Management Committee (PMC) (<http://www.ebu.ch/en/technical/projects/PMC/>).

### 5. Download Zone

The following documents are available for download:

Filename	Document description	Contents
EBU_PMETAv020001_Doc.zip	P_META 2.0 Documentation	tec_doc_t3295v2-2007.pdf (this document)  <a href="#">EBU_PMETA_Tech3295SchemaDocv020001p.pdf</a>
EBU_PMETAv020001p.xsd	P_META 2.0 Reference Schema, Ver 2.0.1	<a href="#">EBU_PMETAv020001p.xsd</a> <a href="#">EBU_PMETAv020001p.zip</a> (including the xml stub for validation)
EBU_PMETA_CS_v020001p.zip	P_META 2.0 Reference Data Ver 2.0.1	<a href="#">EBU_PMETAv020001_cs_p.zip</a>

### 6. Other EBU Metadata Specifications

The following applications are using P\_META:

- EBU Exchange Metadata Schema, which defines a common core set of metadata for B2B content exchange.
- EBU Music Report Metadata Schema, which defines a common core set of metadata for reporting music broadcasts.
- WBU ISOG Transmission Booking Metadata Schema, which defines a common core set of metadata for asset management application software managing ISOG transmissions.

Other EBU metadata specifications in preparation:

- Draft AES Audio Metadata Schema, which defines radio programmes or radio items.
- Draft Archives Metadata Schema, which defines metadata for search and query or broadcasters archives from Internet servers.

## 7. Useful links

- AES (<http://www.aes.org>)
- Dublin Core (<http://www.dublincore.org>)
- DVB (<http://www.dvb.org>)
- EBU Metadata (<http://www.ebu.ch/en/technical/metadata/specifications/index.php>)
- ETSI (<http://www.etsi.org>)
- IANA (<http://www.iana.org>)
- IPTC (<http://www.iptc.org>)
- IOC - International Olympic Committee (<http://www.olympic.org/uk/sports/>)
- ISO (<http://www.iso.org>)
  - ISO 4217 - Currency codes :
    - <http://www.iso.org/iso/en/prods-services/popstds/currencycodeslist.html>
  - ISO 3166-1 - Country codes (English):
    - <http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/list-en1.html>
  - ISO 3166-1 - Country codes (French):
    - <http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/list-fr1.html>
  - ISO 639 - Language codes:
    - <http://www.loc.gov/standards/iso639-2/>
- MPEG (<http://www.chiariglione.org/mpeg>, [www.mpeg.org](http://www.mpeg.org))
- Parental Guidance: <http://www.parentalguide.org/>, <http://www.mpa.org/>
- PBCore (<http://www.pbcore.org>)
- SMPTE (<http://www.smpete.org>)
- Sign languages: <http://www.signwriting.org/archive/docs1/sw0033-Sign-Language-Codes.pdf>
- TV-Anytime (<http://www.tv-anytime.org>)
- United Nations - Territory codes: <http://unstats.un.org/unsd/methods/m49/m49regin.htm>

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