

Exchange Metadata Set

Source: P/MAG

Status: Specification v1.1

Geneva
July 2009

Introduction

The current document is the first of a series of specifications of metadata applications, which use, profile and possibly extend the P_META Semantic Metadata Schema (Tech 3295).

This specification defines a basic set of metadata for information exchange between content creators, distributors, archives and systems.

The scenario where exchange applies is primarily a business-to-business one (B2B). That is, an exchange of information, products, and services, between separate businesses. The mechanisms provided in this specification allow one business party to enquire for content according to a series of semantic or technical criteria ('this is what I am looking for: do you have it?'), while another can announce availabilities ('this is what I have: are you interested?'). The list of available material communicates itemised information about one or more programmes or groups of programmes stated to be available for material exchange, such as in a "shop window". If the material is relevant, more information is exchanged to instantiate the exchange.

Although the main focus is the exchange of content between EBU members, some implementations use these mechanisms as an interface to exchange content related information between production sub-systems.

The EBU Exchange Metadata Set will be managed and maintained by the EBU. It will be updated in response to user feedback.

How may the "EBU Exchange Metadata Set" be used?

Broadcasters that have developed internal metadata solutions are invited to use the EBU Exchange Metadata Set. It can simply be implemented 'as is' or extended to cover specific needs.

Terms and Conditions of Use

The EBU Exchange Metadata Set is freely available for all to use, but you should take note of the following:

© EBU 2008.

REDISTRIBUTION AND USE OF THIS SPECIFICATION AND ASSOCIATED RESOURCES IS PERMITTED PROVIDED THAT THE FOLLOWING CONDITIONS ARE MET:

- REDISTRIBUTIONS MUST RETAIN THE ABOVE COPYRIGHT NOTICE, THIS LIST OF CONDITIONS AND THE FOLLOWING DISCLAIMER IN THE DOCUMENTATION AND/OR OTHER MATERIALS PROVIDED WITH THE DISTRIBUTION;
- NEITHER THE NAME OF THE EBU NOR THE NAMES OF ITS CONTRIBUTOR(S) MAY BE USED TO ENDORSE OR PROMOTE PRODUCTS DERIVED FROM THIS SPECIFICATION AND ASSOCIATED RESOURCES WITHOUT SPECIFIC PRIOR WRITTEN PERMISSION.

DISCLAIMER: THIS SPECIFICATION AND ASSOCIATED RESOURCES IS PROVIDED BY THE COPYRIGHT OWNER "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS [SOFTWARE], EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Contents

1. Overview	7
2. Schema Documentation	7
2.1 Introduction	7
2.2 Declared Namespaces.....	7
2.3 Availability Query format	8
2.4 Availability Reply format	9
2.5 Availability Material List format	11
2.6 Exchange Request format	11
2.7 Exchanged material descriptive metadata format	12
2.7.1 Programme information.....	12
2.7.2 Item information	12
2.7.3 Media Object information	13
3. Implementation Guidelines	13
4. Maintenance.....	13
5. Download Zone	14
6. Useful links	14

EXCHANGE

Exchange Metadata Set

<i>EBU Committee</i>	<i>First Issued</i>	<i>Revised</i>	<i>Re-issued</i>
PMC	2008	July 2009 (version 1.1)	

Keywords: Metadata, Schema, XML, Exchange, P_META

1. Overview

The EBU Exchange Metadata Set has been defined to support the exchange of information when searching for content, which can only be done if a common format has been agreed for interoperability purposes.

A transaction is engaged by stating a request for content, which is followed by a reply detailing available content responding to the request.

2. Schema Documentation

2.1 Introduction

The EBU Exchange Metadata Set is documented in the following sections.

This specification complies with XML 1.0 (<http://www.w3.org/2001/XMLSchema>) and use tools from the P_META toolbox.

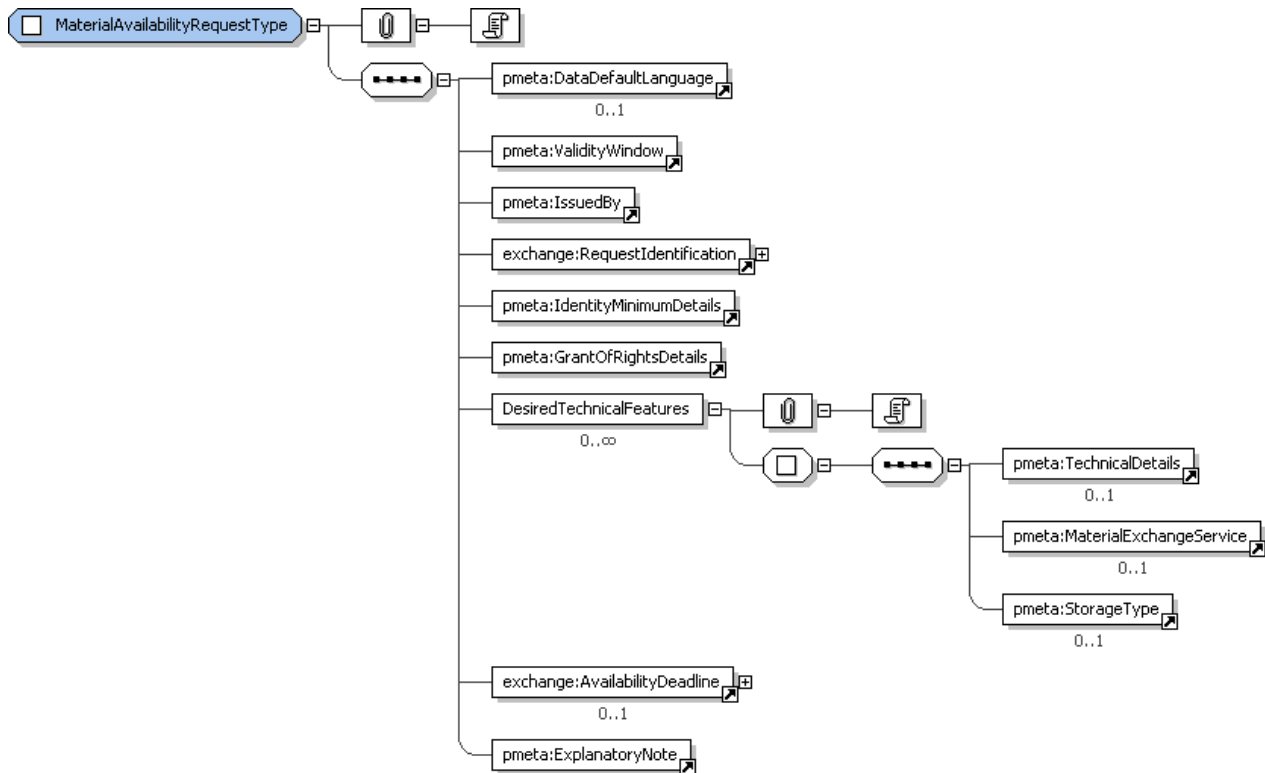
2.2 Declared Namespaces

The declaration of namespaces is done according to RFC5174 that defines the ebu: namespace format.

Prefix	Namespace
Default namespace	http://www.w3.org/2001/XMLSchema
pmeta	urn:ebu:metadata-schema:ebupmeta_20090701
exchange	urn:ebu:metadata-schema:ebuexchange_20090701

2.3 Availability Query format

The query format defines the information provided to identify and search content of interest.



```

<complexType name="MaterialAvailabilityRequestType">
  <sequence>
    <element ref="pmeta:DataDefaultLanguage" minOccurs="0"/>
    <element ref="pmeta:ValidityWindow"/>
    <element ref="pmeta:IssuedBy"/>
    <element ref="exchange:RequestIdentification"/>
    <element ref="pmeta:IdentityMinimumDetails"/>
    <element ref="pmeta:GrantOfRightsDetails"/>
    <element name="DesiredTechnicalFeatures" minOccurs="0"
maxOccurs="unbounded">
      <complexType>
        <sequence>
          <element ref="pmeta:TechnicalDetails"
minOccurs="0"/>
          <element ref="pmeta:MaterialExchangeService"
minOccurs="0"/>
          <element ref="pmeta:StorageType" minOccurs="0"/>
        </sequence>
      </complexType>
    </element>
    <element ref="exchange:AvailabilityDeadline" minOccurs="0"/>
    <element ref="pmeta:ExplanatoryNote"/>
  </sequence>
</complexType>

```



```

<complexType name="MaterialAvailabilityReplyType">
  <sequence>
    <element ref="pmeta:DataDefaultLanguage" minOccurs="0"/>
    <element ref="pmeta:ValidityWindow"/>
    <element ref="pmeta:IssuedBy"/>
    <element ref="exchange:RequestIdentification"/>
    <element ref="exchange:ReplyIdentification"/>
    <element ref="pmeta:IdentityMinimumDetails"/>
    <element ref="pmeta:GrantOfRightsDetails"/>
    <element name="AvailableTechnicalFeatures" minOccurs="0"
maxOccurs="unbounded">
      <complexType>
        <sequence>
          <element ref="pmeta:TechnicalDetails"
minOccurs="0"/>
          <element ref="pmeta:MaterialExchangeService"
minOccurs="0"/>
          <element ref="pmeta:StorageType" minOccurs="0"/>
        </sequence>
      </complexType>
    </element>
    <element ref="exchange:AvailabilityDeadline" minOccurs="0"/>
    <element ref="pmeta:ExplanatoryNote"/>
  </sequence>
</complexType>

```

Name	Definition
DataDefaultLanguage	An element to specify the language used by default in descriptive element instances
ValidityWindow	Defines a period of time during which the availability of material is guaranteed.
IssuedBy	An element to identify the entity at the origin of the reply
RequestIdentification	An element to uniquely identify the original request
ReplyIdentification	An element to uniquely identify the current reply
IdentityMinimumDetails	An element to provide minimum identification information for the available material
GrantOfRightsDetails	An element to detail the conditions under which the material can be used
AvailableTechnicalFeatures	An element to define the technical characteristics of the available material
TechnicalDetails	An element to provide detailed technical information on the available audio, video and picture formats
MaterialExchangeService	An element to identify the service with which organising the exchange
StorageType	An element to specify the storage form under which the exchange can be made
AvailabilityDeadline	The date and time by which the material can be delivered
ExplanatoryNote	An element to provide additional information regarding the reply

2.5 Availability Material List format

Alternatively, a list of available material can be returned as a response to a request.

```
<complexType name="AvailableMaterialType">
  <sequence>
    <element ref="pmeta:DataDefaultLanguage" minOccurs="0"/>
    <element ref="pmeta:ValidityWindow"/>
    <element ref="pmeta:IssuedBy"/>
    <element ref="pmeta:Material" maxOccurs="unbounded"/>
  </sequence>
</complexType>
```

Name	Definition
DataDefaultLanguage	An element to specify the language used by default in descriptive element instances
ValidityWindow	Defines a period of time during which the availability of material is guaranteed.
IssuedBy	An element to identify the entity providing the list
Material	An element to describe the group of available programmes including details on programme related content items and media objects, if desired

2.6 Exchange Request format

The exchange request is sent after content has been selected from the content provider replies.

```
<complexType name="MaterialExchangeRequestType">
  <annotation>
    <documentation xml:lang="EN"/>
  </annotation>
  <sequence>
    <element ref="pmeta:DataDefaultLanguage" minOccurs="0"/>
    <element ref="pmeta:ValidityWindow"/>
    <element ref="pmeta:IssuedBy"/>
    <element ref="exchange:RequestIdentification"/>
    <element ref="exchange:ReplyIdentification"/>
    <element ref="pmeta:IdentityMinimumDetails"/>
    <element ref="pmeta:ExplanatoryNote" minOccurs="0"/>
  </sequence>
</complexType>
```

Name	Definition
DataDefaultLanguage	An element to specify the language used by default in descriptive element instances
ValidityWindow	Defines a period of time during which the delivery of material is expected
IssuedBy	An element to identify the entity providing the request
RequestIdentification	An element to uniquely identify the original request
ReplyIdentification	An element to uniquely identify the reply at the origin of the request
IdentityMinimumDetails	An element to provide minimum identification information for the available material
ExplanatoryNote	An element to provide additional information on the request

2.7 Exchanged material descriptive metadata format

After the exchange has been agreed, the following information is delivered with the material differentiating a full programme, a content item or a media object.

2.7.1 Programme information

The following set is the metadata delivered with programmes:

```
<complexType name="ProgrammesExchangeType">
  <sequence>
    <element ref="pmeta:DataDefaultLanguage" minOccurs="0"/>
    <element ref="pmeta:ValidityWindow"/>
    <element ref="pmeta:IssuedBy"/>
    <element ref="exchange:TransactionIdentifier"/>
    <element ref="pmeta:Material" maxOccurs="unbounded"/>
    <element ref="pmeta:ExplanatoryNote"/>
  </sequence>
</complexType>
```

Name	Definition
DataDefaultLanguage	An element to specify the language used by default in descriptive element instances
ValidityWindow	Defines a period of time during the material can be used
IssuedBy	An element to identify the entity providing the content and metadata
TransactionIdentifier	An element to uniquely identify the transaction
Material	A complete description of the material, as a group, a programme including related items and media objects
ExplanatoryNote	An element to provide additional information on the exchange

2.7.2 Item information

The following set is the metadata delivered with content items:

```
<complexType name="ItemsExchangeType">
  <sequence>
    <element ref="pmeta:DataDefaultLanguage" minOccurs="0"/>
    <element ref="pmeta:ValidityWindow"/>
    <element ref="pmeta:IssuedBy"/>
    <element ref="exchange:TransactionIdentifier"/>
    <element ref="pmeta:Item" maxOccurs="unbounded"/>
    <element ref="pmeta:ExplanatoryNote" minOccurs="0"/>
  </sequence>
</complexType>
```

Name	Definition
DataDefaultLanguage	An element to specify the language used by default in descriptive element instances
ValidityWindow	Defines a period of time during the material can be used
IssuedBy	An element to identify the entity providing the content and metadata
TransactionIdentifier	An element to uniquely identify the transaction
Item	A complete description of the item
ExplanatoryNote	An element to provide additional information on the exchange

2.7.3 Media Object information

The following set is the metadata delivered with media objects:

```
<complexType name="MediaObjectsExchangeType">
  <annotation>
    <documentation xml:lang="EN"/>
  </annotation>
  <sequence>
    <element ref="pmeta:DataDefaultLanguage" minOccurs="0"/>
    <element ref="pmeta:ValidityWindow"/>
    <element ref="pmeta:IssuedBy"/>
    <element ref="exchange:TransactionIdentifier"/>
    <element ref="pmeta:MediaObject" maxOccurs="unbounded"/>
    <element ref="pmeta:ExplanatoryNote"/>
  </sequence>
</complexType>
```

Name	Definition
DataDefaultLanguage	An element to specify the language used by default in descriptive element instances
ValidityWindow	Defines a period of time during the material can be used
IssuedBy	An element to identify the entity providing the content and metadata
TransactionIdentifier	An element to uniquely identify the transaction
MediaObject	A complete description of the media object
ExplanatoryNote	An element to provide additional information on the exchange

3. Implementation Guidelines

Several aspects of the specification are left to the appreciation of the implementer such as the protocols (e.g. SOAP) for exchanging the metadata defined in this specification.

4. Maintenance

The EBU Exchange Metadata Set will be maintained by the EBU and suggestions for corrections or additions can be made at (metadata@ebu.ch). EBU members can also provide feedback via the EBU Technical Department's website:

(<http://tech.ebu.ch/MetadataMaintenanceSpecifications>).

Contributions will be subject to peer review by the metadata experts participating in P/MAG (<http://tech.ebu.ch/groups/pmag>), a specialised Project Group of the Production Management Committee (PMC) (<http://tech.ebu.ch/groups/pmc>).

5. Download Zone

The following documents are available for download:

Filename	Document description	Contents
EBU_EXCHANGE_20090701.zip	Schema	EBU_EXCHANGE_20090701.xsd xml.xsd EBU_PMETA_20090701.xsd

6. Useful links

EBU Metadata (<http://tech.ebu.ch/metadata/>)