



Commercial Delivery Descriptive Metadata File Specifications

Project : Columbus

Release : 1.0

Version History

VERSION NUMBER	REVISION DATE	AUTHOR	SUMMARY OF CHANGE
0.01	08/28/13	Amar Tummala	Initial Draft
0.02	09/03/13	Amar Tummala	Corrected some descriptions
0.03	09/06/13	Amar Tummala	Removed “Havas Edge” from Delivering Entity List
0.04	09/09/13	Amar Tummala	Updated formatting details for BxfMessage/@id
0.05	10/10/13	Amar Tummala	Added Video Express as one of the Delivering entities
0.06	11/13/13	Amar Tummala	Removed invalid 720i from Video format
0.07	12/13/13	Amar Tummala	Changed originType value in XML to "Content_Distribution"

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1 Introduction

This document provides metadata file delivery specifications for those who deliver interstitial material – Commercial – to ABC Television Network. Delivering Entities must use this specification in providing descriptive metadata on Commercials.

This specification is defined in the form of media industry standard specification called the Broadcast Exchange Format (BXF) – a protocol for exchange of data among broadcast systems such as Traffic, Program Management, Automation, and Content Distribution. This BXF standard is defined by SMPTE (the Society of Motion Picture and Television Engineers), an internationally-recognized standards developing organization.

2 Commercial Descriptive Metadata

Delivering Entities must send Commercial descriptive metadata as a BxferMessage in an XML format. The table below defines the required ABC Metadata elements, their mapping to the BXF XSD Schema elements, and formatting details which must be followed in creating the BxferMessage XML.

In the below table, some rows do not have the ABC Metadata column populated, yet BXF XSD Schema Elements are defined. These elements are usually used by processing applications and they must be populated in the XML by the Delivering Entities in order to follow BXF standard and to make the XML valid against the BxferMessage XSD schema. **So it is an inherent requirement that all the below defined BXF XSD Schema elements are required elements and must be provided in the XML.**

ABC Metadata	BXF XSD Schema Element	Formatting Details
	BxferMessage/@id	A UUID (universally unique identifier), a.k.a. GUID (Globally unique identifier), an identifier standard used in software construction. This is primarily used to uniquely identify and track messages when exchanging them between applications/systems. See below section 4 References for more explanation on how to generate this.
	BxferMessage/@dateTime	Identifies when the message was created.
	BxferMessage/@messageType	Identifies the message type/category. Default this to “Information”
Delivering Entity	BxferMessage/@origin	Identifies the message originator. Valid values are:

ABC Metadata	BXF XSD Schema Element	Formatting Details
		Comcast DG Systems Extreme Reach Javelin On the Spot Media Yangaroo Syncro Video Express
	BxfMessage/@originType	Identifies the originator’s type. Valid values are: Automation Conditional_Access MPEG_Control Program_Management Table_Generator Traffic Listing_Service Metadata_Extractor Table_Extractor Data_Server Transcoder Content_Distribution Asset_Management Sales_System Default this to “Content_Distribution”
	BxfMessage/@userName	Identifies the user that made the application changes which resulted in the message being created. If the message was generated by a background process or service, then the process or service name shall be specified.
	BxfMessage/BxfData/@action	Enables the sender of a message to indicate, for each element, which action should be performed on the current element. Valid values are: read add update remove

ABC Metadata	BXF XSD Schema Element	Formatting Details
		Default this to “add”
	BxfMessage/BxfData/Content/@version	A label to designate the content based on use or purpose. Default this to “NonProgram”
Content Type	BxfMessage/BxfData/Content/NonProgramContent/Details/SpotType	Used to describe the type of spot or other interstitial. Default this to “Commercial”
Advertiser Name	BxfMessage/BxfData/Content/NonProgramContent/Details/AdvertiserName	List of advertisers associated to the Commercial Alphanumeric free text of maximum size 256
Advertising Agency	BxfMessage/BxfData/Content/NonProgramContent/Details/Agency/AgencyName	Name of advertising agency (buying agency) Alphanumeric free text of maximum size 256
Product Name	BxfMessage/BxfData/Content/NonProgramContent/Details/Product/Name	Product name for commercial spot content Alphanumeric free text of maximum size 256
	BxfMessage/BxfData/Content/NonProgramContent/ContentMetadata/ContentId/AlternateId/@idType	Type of alternate identifier and the authoritative source of the content (e.g., ISCI, Custom) Default this to “ADID”
Unique Identifier (AD ID)	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/ContentID/AlternateID	Any proprietary string other than the house number used to identify the material locally or globally. Alphanumeric size of 13 characters
Commercial Name	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/Name	Name or Title of the Commercial. Alphanumeric free text of maximum size 256
Arrival Date	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/UsagePolicy/PrivateInformation/ArrivalDate	Arrival (Delivered to ABC) date. ISO8601 based DateTime format: YYYY-MM-DD"THH:MI:SS(Z [+]zh:zm)

ABC Metadata	BXF XSD Schema Element	Formatting Details
SAP Present	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/Media/Bas eband/Audio/AnalogAudio/@secondaryA udioProgram	Flag if the analog audio channel is used as an SAP source Valid Values are: true false
	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/Media/Bas eband/Audio/DigitalAudio/MPEGLayerIIA udio/@audiold	Defaults to "1"
Audio Format	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/Media/Bas eband/Audio/DigitalAudio/MPEGLayerIIA udio/@surround	Valid Values are: true false True means 5.1 and false means Stereo
Video Format	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/Media/Bas eband/Video/Format	Video presentation format. Valid Values are: 480i 480p 576i 720p 1080i 1080p Currently ABC only allows 720p formatted files
Closed Captioning	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/Media/Bas eband/Video/CaptionsInVANC	If set to true indicates that captioning is embedded in the video VANC Valid Values are: true false
	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/Media/Me diaLocation/Location/AssetServer/@play outAllowed	Valid Values are: true false Default this to "true"
	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/Media/Me diaLocation/Location/AssetServer/@fileT ransferAllowed	Valid Values are: true false Default this to "true"
	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/Media/Me diaLocation/Location/AssetServer/@fileT ransferAllowed	Fully qualified filename including path

ABC Metadata	BXF XSD Schema Element	Formatting Details
	mContent/ContentMetaData/Media/MediaLocation/Location/AssetServer/PathName	
Timecode In	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/Media/MediaLocation/SOM/SmpteTimeCode	The start of message location of the content on the media it is stored. SMPTE Formatted drop frame timecode: HH:MM:SS;FF
Duration	BxfMessage/BxfData/Content/NonProgramContent/ContentMetaData/Media/MediaLocation/Duration/SmpteDuration/SmpteTimeCode	The length of the content in SMPTE Formatted drop frame timecode: HH:MM:SS;FF

3 Sample XML

This is a sample XML for the above specification. Delivering Entities must send a similar XML file for their Commercial delivery by adhering to the formatting details column in the above table.

```
<?xml version="1.0"?>
<BxfMessage xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" id="urn:uuid:ABCCDDDD-6000-11D3-8CFE-
0050048383C9" dateTime="2013-08-23T06:17:42.203875-04:00" messageType="Information"
origin="Delivering Company Name" originType="Content_Distribution" userName="Requested
User" xmlns="http://smpte-ra.org/schemas/2021/2008/BXF">
  <BxfData action="add">
    <Content version="NonProgram">
      <NonProgramContent>
        <Details>
          <SpotType>Commercial</SpotType>
          <AdvertiserName>Quicken Loans</AdvertiserName>
          <Agency>
            <AgencyName>A Eicoff & Company</AgencyName>
          </Agency>
          <Product>
            <Name>Quicken Loans</Name>
          </Product>
        </Details>
        <ContentMetaData>
          <ContentId>
            <AlternateId idType="ADID">QHL15630H</AlternateId>
          </ContentId>
          <Name>MAGIC MAILBOX BRING IT HOME SWEEPS</Name>
          <UsagePolicy>
            <PrivateInformation>
```

```

        <ArrivalDate>2013-08-23T06:17:39</ArrivalDate>
    </PrivateInformation>
</UsagePolicy>
<Media>
    <BaseBand>
        <Audio>
            <AnalogAudio secondaryAudioProgram="true"/>
            <DigitalAudio>
                <MPEGLayerIIAudio audioId="1" surround="false"/>
            </DigitalAudio>
        </Audio>
        <Video>
            <Format>720p</Format>
            <CaptionsInVANC>>false</CaptionsInVANC>
        </Video>
    </BaseBand>
    <MediaLocation>
        <Location>
            <AssetServer layoutAllowed="true" fileTransferAllowed="true">
                <PathName>C:\Commercials\qhl15630h.mpg</PathName>
            </AssetServer>
        </Location>
        <SOM>
            <SmpteTimeCode>00:00:01;00</SmpteTimeCode>
        </SOM>
        <Duration>
            <SmpteDuration>
                <SmpteTimeCode>00:00:29;00</SmpteTimeCode>
            </SmpteDuration>
        </Duration>
    </MediaLocation>
</Media>
</ContentMetaData>
</NonProgramContent>
</Content>
</BxfData>
</BxfMessage>

```

Note: SMPTE provides the BXFMessage specification as an XSD schema. Delivering Entities can use this Schema to validate their XML.

4 References

The following sources are referenced in creating this document:

1. Broadcast Exchange Format (BXF)

- a. Schema Documentation – EG 2021-4:2012
The online version of this document is available at:
<http://standards.smpte.org/content/978-1-61482-688-0/eg-2021-4-2012/SEC1>
 - b. BXF Schema XSDs
2. ABC Television – High Definition Television Commercial File Delivery Technical Specifications
 3. Wikipedia page on Universally unique identifier
http://en.wikipedia.org/wiki/Universally_unique_identifier
 4. Code examples to generate UUID/GUID
<http://guid.us/GUID>