

---

**SMPTE 2021M-2008**

# **SMPTE STANDARD**

## **Broadcast Exchange Format (BXF)**

---



## Table of Contents

Foreword .....	5
Introduction.....	5
Background.....	5
1. Scope .....	7
2 Conformance Notation .....	7
3 Document Elements .....	8
4 Normative References.....	8
5 Glossary (Informative) .....	10
6 System Data Flow (Informative).....	19
7 Protocol (Normative) .....	21
7.1 TCP/IP .....	21
7.1.1 Connections .....	21
7.1.2 Sending of Messages .....	21
7.1.3 Inactive Connections .....	21
7.1.4 List of Devices to Connect To or Accept Connections From .....	21
7.1.5 Initiation of Servers .....	22
7.1.6 Timeout of Services .....	22
7.2 Encryption .....	23
7.3 Message format .....	23
7.3.1 ACK Message Response .....	23
7.3.2 ACK Message Response with Errors or Invalid (NAK).....	23
7.4 File-Based Transport.....	23
7.4.1 File Name.....	24
8 System Security (Informative).....	25
9 Configuration .....	26
9.1 Configuration – Procedure .....	27
9.2 Configuration – Non-schema Settings .....	27
10 Bibliography (Informative).....	28
Annex A - Use Cases (Informative).....	29
A.1 Metadata update .....	29
A.2 Schedule.....	32
A.3 Dub order.....	38
A.4 Purge order .....	41
A.5 Record order .....	42
A.6 Transfer order .....	46
A.7 Content Notify .....	48
A.8 Query request .....	50
A.9 Invoke Schedule .....	52
A.10 Heartbeat .....	53
A.11 As Run .....	54
A.12 Playlist Update .....	58

A.13	Acquisition Failure .....	61
Annex B	– Informative Notes.....	63
B. 1	Design Considerations .....	63
B. 2	Schema .....	63
B. 3	Overview of Transactions.....	66
B. 4	Message Lifecycles .....	68
B.4.1	BXF Request Message Lifecycle.....	68
B.4.2	Information Message.....	70
B.4.3	Heartbeat Message.....	71
B.4.4	Message Status Request .....	72
B.5.	Message Processing .....	72
B.5.1	Acknowledgement Messages.....	72
B.5.2	Heartbeat Messages .....	73
B.5.2.1	Heartbeat Message Timing and Timeout .....	73
B.6.	Primary Message Attributes .....	73
B.6.1	messageType Attribute .....	73
B.6.1.1	Initiating.....	74
B.6.1.2	Responding.....	74
B.6.1.3	Relationship to Message Body .....	74
B.6.2	status Attribute .....	74
B.6.2.1	valid.....	74
B.6.2.2	invalid .....	75
B.6.2.3	OK .....	75
B.6.2.4	error .....	75
B.6.3	action Attribute .....	75
B.6.4	error Attribute .....	75
B.6.5	errorDescription Attribute .....	76
B.7.	Actions in Messages .....	76
B.7.1	Action Examples (Valid).....	77
B.7.1.1	Add All Elements .....	77
B.7.1.2	Update All Elements .....	77
B.7.1.3	Remove All Elements .....	78
B.7.1.4	Add Sub-Element to an Existing Element .....	78
B.7.1.5	Add and Update Sub-Elements Concurrently .....	78
B.7.1.6	Add and Remove Sub-Elements Concurrently.....	78
B.7.1.7	Update and Remove Sub-Elements Concurrently .....	78
B.7.1.8	Updating Nested Child Element .....	79
B.7.1.9	Action Examples (Not Valid).....	79
B.7.1.10	Delete Parent Element and Add Child .....	79
B.7.1.11	Add Parent Element and Remove Child .....	79
B.7.1.12	Add Parent Element and Update Child .....	79
B.8.	Error Handling.....	80
B.8.1	Error Handling Responsibilities.....	80
B.8.2	Error Handling Examples.....	80
B.8.2.1	Acknowledgement Error Example .....	80
B.8.2.2	Reply Error Example .....	81
B.9.	Query Syntax.....	81
B.9.1	Syntax: .....	81
B.9.2	Symbol Definition and Semantics: .....	82
B.9.3	Reference Examples .....	82
B.9.3.1	All active Channels for a given date range .....	82
B.9.3.2	Schedule identification for a given date range.....	82
B.9.3.3	Schedules for a specific Channel for a given date range .....	83

B.9.3.4 Only “as Run” schedules on Channel WXYZ .....	83
B.9.3.5 Content Transfer Query .....	83
Annex C - BXF Schema (Informative) .....	85
C. 1     Schema documentation usage .....	85
C. 2     Schema - BxfSchema.xsd .....	88

## Foreword

SMPTE (the Society of Motion Picture and Television Engineers) is an internationally-recognized standards developing organization. Headquartered and incorporated in the United States of America, SMPTE has members in over 80 countries on six continents. SMPTE's Engineering Documents, including Standards, Recommended Practices and Engineering Guidelines, are prepared by SMPTE's Technology Committees. Participation in these Committees is open to all with a bona fide interest in their work. SMPTE cooperates closely with other standards-developing organizations, including ISO, IEC and ITU.

SMPTE Engineering Documents are drafted in accordance with the rules given in Part XIII of its Administrative practices. SMPTE Standard 2021 was prepared by Technology Committee S22.

## Introduction

This section is entirely informative and does not form an integral part of this Engineering Document

Broadcast Exchange Format (BXF) is a protocol for exchange of data among broadcast systems such as Traffic, Program Management, Automation, and Content Distribution. It is intended to facilitate the movement of content and its associated metadata for better management, coordination and reporting between these broadcast systems. The BXF Protocol serves as a replacement for the many proprietary interfaces in place today between vendors in these areas.

Unless otherwise specified the order of precedence of the types of normative information in this document shall be as follows. Normative prose shall be the authoritative definition. Tables shall be next, followed by formal languages, then figures, and then any other language forms. In the event of a conflict between the schema and other information in this document, the schema is authoritative

## Background

To understand the scope of BXF, a little background is helpful. The genesis of BXF can be traced to the need for a consistent yet flexible means for exchanging schedule, as run, and content metadata between Traffic and Automation systems. Literally hundreds of proprietary, fixed interfaces and protocols have been created over the past 20 years or so between these two types of systems. Vendors who create and develop these systems were invited to share ideas in search of a better way to facilitate the exchange of data between systems. The group quickly embraced Content Distribution and Program Management vendors as well, as they too were seeking a form of standardization and improvement in their interfacing efforts.

BXF supports the exchange of single or multiple records at one time, over a variety of transport mechanisms.

While endeavoring to be a comprehensive protocol, it is acknowledged that it is possible that additional data elements, or data elements that apply to a few specific systems, may need to be exchanged. For this reason, Private Information structures have been placed at various points in the schema to allow vendors the flexibility to add data elements.

It is expected that BXF could be extended in the future, as warranted, and it has been designed with this in mind.

BXF is intended to complement, not replace, the following:

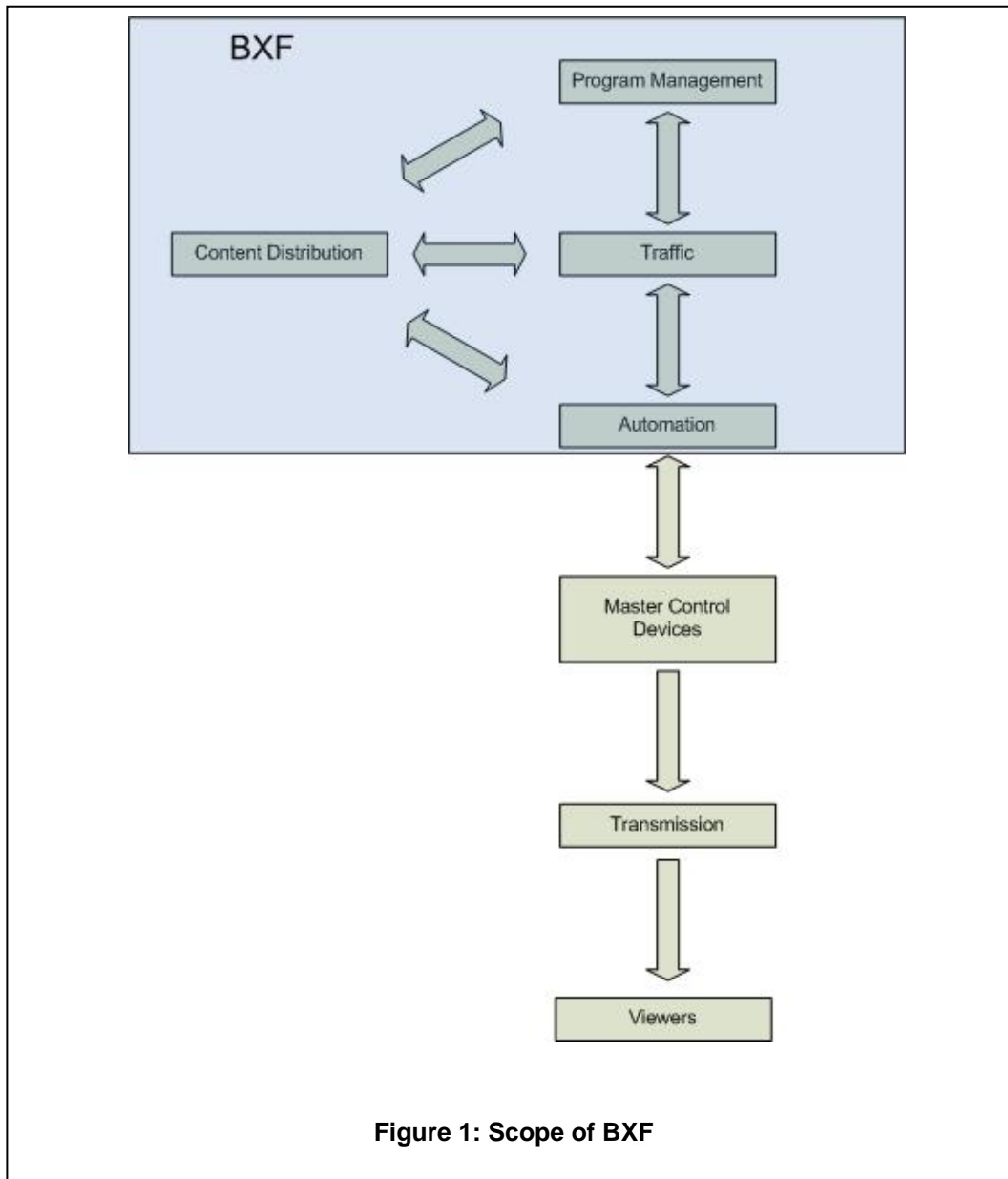
- Advanced Authoring Format
- Material eXchange Format
- MDP – Media Dispatch Protocol

It is acknowledged that some may see an area of overlap in BXF's ability to request the movement of content with other standards, such as MDP. However, MDP itself does not include support for these specific requests. Instead,

BXF incorporates aspects of several pre-existing standards into its schema, such as:

- Programming Metadata Communication Protocol (ATSC)
- International Standard Audiovisual Number (ISO)
- Ad-ID (AAAA/ANA)

The following figure illustrates the scope of BXF within a broadcast facility. Those areas outside of the BXF box are considered outside the intended scope of the BXF protocol and this document.



# Broadcast Exchange Format (BXF)

## Part 1 (Normative)

### 1. Scope

The Broadcast eXchange Format (BXF) defines the format and content of XML Messages for the interchange of data and metadata among professional systems, as follows:

1. Broadcast schedules, including playout and record schedules
2. As run information
3. Content metadata, such as Content ID, Title, Duration, etc.
4. Content management requests such as dub and purge requests
5. Requests for transfer of content some of which will result in the transfer of Content essence between professional systems.
6. Ports as used by TCP/IP for the exchange of messages

The primary systems envisioned as users of this standard are:

Program Management Systems  
Broadcast Traffic Systems  
Master Control Automation Systems  
Content Distribution Systems

### 2 Conformance Notation

Documents consist of normative text and, optionally, informative text. Normative text is that describes elements of the design that are indispensable or contains the conformance language keywords: "shall", "should", or "may". Informative text is text that is potentially helpful to the user, but not indispensable, and can be removed, changed, or added editorially without affecting interoperability. Informative text does not contain any conformance keywords.

All text in a Standard, Recommended Practice, Amendment, Addendum, or Corrigendum, is, by default, normative, except: the Introduction, any section explicitly labeled as "Informative" or individual paragraphs that start with "Note:"

Normative references are external documents referenced in normative text that are indispensable to the user. Bibliographic references are references made in informative text or are those otherwise not indispensable to the user. Normative references shall conform to the types and procedures specified in the Engineering Administrative Practices.

The keywords "shall" and "shall not" indicate requirements strictly to be followed in order to conform to the document and from which no deviation is permitted. The keywords, "should" and "should not" indicate that, among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required; or that (in the negative form) a certain possibility or course of action is deprecated but not prohibited.

The keywords "may" and "need not" indicate courses of action permissible within the limits of the document.

The keyword "reserved" indicates a provision that is not defined at this time, shall not be used, and may be defined in the future. The keyword "forbidden" indicates "reserved" and in addition indicates that the provision will never be defined in the future.

A conformant implementation according to an Engineering Document is one that includes all mandatory provisions ("shall") and, if implemented, all recommended provisions ("should") as described. A conformant implementation need not implement optional provisions ("may") and need not implement them as described.

### 3 Document Elements

This document is comprised of the following elements, which form an integral piece of this Standard. Additionally, the schema files may be found at <http://smp-te-ra.org/schemas/2021/2008/BXF>.

- a) Prose document S2021-2008.pdf (this file) [Normative]
- b) XML schema s2021-2008.xml [Normative]
- c) HTML schema guide s2021-2008.html [Informative]

### 4 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below.

- XML Schema Part 1: Structures Second Edition, W3C Recommendation 28 October 2004, <http://www.w3.org/TR/2004/REC-xmlschema-1-20041028/>
- XML Schema Part 2: Datatypes Second Edition, W3C Recommendation 28 October 2004, <http://www.w3.org/TR/2004/REC-xmlschema-2-20041028/> Extensible Markup Language (XML) 1.0 (Second Edition)
- W3C Recommendation, 6 October 2000, <http://www.w3.org/TR/2000/REC-xml-20001006>
- XML Schema, W3C Recommendation, 2 May 2001, <http://www.w3.org/TR/2001/REC-xmlschema-0-20010502>
- A/76B "Programming Metadata Communication Protocol, Revision B", Advanced Television Systems Committee, Washington, DC, January, 2008
- ISO 20924-1:200x, Information and documentation – Version identifier for audiovisual works (V-ISAN) – Part 1: Format and use
- "XML Path Language", W3C Recommendation 16 November 1999, <http://www.w3.org/TR/1999/REC-xpath-19991116>
- ISO 15706:2002 Information and documentation -- International Standard Audiovisual Number (ISAN)
- SMPTE 258M-2004 Transfer of Edit Decision Lists, Society of Motion Picture and Television Engineers, April 21, 2004.
- A Universally Unique IDentifier (UUID) URN Namespace P. Leach, M. Mealling, R. Salz, 2005 IETF RFC4122 <http://www.ietf.org/rfc/rfc4122.txt>
- IETF RFC3986 - Uniform Resource Identifiers (URI): Generic Syntax T. Berners-Lee, et al. The Internet Society, 2005. <http://www.ietf.org/rfc/rfc3986.txt>
- IETF RFC3066 - Tags for the Identification of Languages, H. Alvestrand, The Internet Society, 2001. <http://www.ietf.org/rfc/rfc3066.txt>



- MPEG-2 ISO/IEC 13818-2:2000, Information technology — Generic Coding of Moving Pictures and Associated Audio Information: Video
- A/65C, “Program and System Information Protocol for Terrestrial Broadcast and Cable, Revision C, with Amendment No. 1”, Advanced Television Systems Committee, Washington, DC, 9 May 2006
- A/53:2007, “ATSC Digital Television Standard”, Advanced Television Systems Committee, Washington, DC, 3 January 2007
- CEA-708-C, Digital Television (DTV) Closed Captioning, Consumer Electronics Association

## 5 Glossary (Informative)

The following definitions apply within the BXF protocol standard.

Word	Element/Attribute Name	Definition
Advertiser Name	AdvertiserName	Time in a broadcast schedule may be sold to a third party for the purpose of advertising products, goods, or services. These are commonly referred to as commercials, and the third party that purchased the time for the commercial is an Advertiser.
Agency	Agency	The entity that manages placement of commercials, and in some cases the production of commercials
Alternate Audio Content	AlternateAudioContent	If audio that is not directly associated with the primary video content is scheduled to run with the primary video, a separate piece of content for just this audio must be indicated. This includes audio that may be provided for the purpose of accessibility issues.
As Run (Schedule)	AsRun	A term typically applying to broadcast playout schedules referring to the exact events that aired during a specific period of time, usually a broadcast day and also includes errors concerning scheduled content that did not air or was aired improperly.
	CompleteAsRun	
	BasicAsRun	
Asset Server	AssetServer	Asset server is a term that describes a server where commercial and program content is stored.
Authorization List	AuthorizationList	For cable operations a list of cable headend locations that are authorized to present specific commercial content.
Avail Number	AvailNumber	A count of the number of format positions that are allowed to contain commercial content.
Billing Reference Code	BillingReferenceCode	A unique reference code for each billable event that typically links back to the system that created the event, and is used in the reconciliation of the as run against the schedule.

Channel	Channel	A definition used to describe the means by which a schedule is broadcast.
Configuration	Configuration	There are several schema elements that are not specifically enumerated in the schema and must be configured between the two systems before the elements can be used.
Constraints	Constraints	A set of rules that restricts the placement of commercial content on a schedule.
Content	Content	Content may contain multiple essence types, (e.g. audio, video, etc.)
Content Metadata	ContentMetaData	Information concerning a specific piece of content
Content Play Number	ContentPlayNumber	Each time a program is scheduled and aired by an entity it is given a play number that allows the entity to track how many times it has been aired.
Content Transfer	ContentTransfer	The movement or copying of content from one location to another.
Content Type	ContentType	Another way to categorize content into specific groupings (e.g. network, local, news, entertainment).
Day Pattern	dayPattern	When creating a schedule description, it is possible to define only part of a schedule that covers specific days and periods of time. The day pattern is used to describe this using Monday as the arbitrary first day of the week and having seven elements where each one represents one day of the week. For example, the number string 1111100 would represent M-F, 0000010 represents Sat, and 0000001 is Sun.
Dub Request (May sometimes be called "Copy")	transferType:Duplication	A set of instructions that cause the specified content to be copied from its original location to a new destination.
Duration	Duration	Duration of content

E-I Code	E-ICode	Certain programs may be designated by the entity to conform to a governmental standard of being education and/or informational in nature for a specific age group, usually children and teens (FCC 06-143).
Elements	Elements	A stream of content can be divided into its individual elements (i.e. Commercials, program segments, graphics, etc).
Embargo Date	EmbargoDate	The first date content may be used
Embedded Non-program Content	EmbeddedNonProgramContent	This is another name for commercial content supplied by the distributor of the content and is considered part of a program segment rather than being broken out into its own event. When this happens, the commercial content is referred to as being embedded.
End Mode	EndMode	Each event can end using one of several possible options:  Duration - when the value set for the event's duration is reached. Manual - when the operator ends the event via manual intervention. External - continue to run until an external event has taken place that triggers the end of the event.
EOM		End of Material is a point beyond which the content should not be played.
Episode	EpisodeName EpisodeCode	A single program of a series.

Event	EventData	<p>An event is a period of time during which one or more types of content is displayed on the channel. Examples include:</p> <p>Single event: playback of a program segment that is uninterrupted.</p> <p>Single event: playback of a non-program type content (commercials).</p> <p>Single event with no duration: turning on the tower lights at dusk.</p> <p>Single event with no duration: the generation of a commercial cue tone.</p> <p>Multiple events: playback of a promotional message at the end of a movie while the credits are rolling.</p>
Expendable	Expendable	A flag that is set on an event by the traffic management system to indicate that the event may be preempted.
Expiration Date	ExpirationDate	The last date and time when the content can be used on a schedule as determined by its contract or some other restriction.
Federal Source	FederalSource	A value that is set for each event as required by the local or federal government in order to categorize the event in some way.
First Air Date	FirstAirDate	The first date that the content is aired on a schedule.
Format Element Type	FormatElementType	Formats consist of either segments or breaks. Segments are placeholders for program content and breaks are placeholders for commercial content. Comments can also be added to formats but can not hold any type of content.
Format	Format	The definition of the empty structure of a program as used by the traffic system to construct a schedule grid.
Frame		A frame contains all of the lines of spatial information of a video signal required to make up one complete picture.

Frame Rate	frameRate	The number of frames per second
Genre	Genre	Programs may be grouped into separate categories for the convenience of organizing them. Genre usually represents the type of content based on the storyline or style of the content. (E.g. police drama, western, game show, children's show, etc.)
Heartbeat Message	messageType:Heartbeat	An XML message conforming to the BXF Schema definitions that is used by one system to query if another system is operational.
Hiatus Date Range	HiatusDateRange	A date range period after the embargo date, but before the expiration date during which the content can not be aired.
IgnoreAvail	IgnoreAvail	A flag to indicate that commercial content may not be aired in some locations while still being authorized to air in others based on external agreements.
JIP Flag	JipFlag	Set when a program is joined in progress rather than starting at its beginning.
Last Play Flag	LastPlayFlag	Set when a program is being aired for the last time.
Macro	MacroEvent	In order to facilitate the processing of a complex sequence of instructions to an automation system, a single macro name is substituted which may also have a set of parameters that define how the macro is to be processed by the device. The execution of the macro by the automation system triggers a predefined series of discreet events rather than requiring that each event be specifically called.
Media	Media	The physical means on which a piece of content is stored (i.e. Tape, dvd, and server).
Non-primary Elements	NonPrimaryElements	The individual components of a format that make up a non-primary event.
Non-primary Event	NonPrimaryEvent	An event that depends on a primary event and is scheduled relative to that event.

Non-program Content	NonProgramContent	Short form content that is interspersed between the program content.
Parental Rating	ParentalRating	A rating applied to most program content that allows parental control.
Physical Asset	PhysicalAsset	The storage of content on a physical medium such as tapes, CDs, DVDs, etc.
Playout Schedule		A list of events to be played in sequential order based on the instructions included as part of the schedule.
Preemption Warning	PreemptionWarning	A flag set by the traffic system to warn the operator of the automation system not to preempt the airing of the flagged content.
Premiere Flag	PremiereFlag	Set when a program is first aired by the entity.
Primary Duration	PrimaryDuration	The length of time assigned as the duration of a format element.
Primary Element ID	PrimaryElementId	A value assigned to each element of a format that can then be used to link it to a specific event.
Primary Event	PrimaryEvent	An event that does not depend upon any other event to happen.
Primary Offset	PrimaryOffset	Each format element is given an offset value in time to indicate when it starts relative to the start of the program.
Product Code	ProductCode	The category of the product.
Product Name	ProductName	The name of the product being advertised.
Program Contract	ProgramContract	Many programs are purchased or licensed from a third party and the program contract specifies the limitations on how that program may be aired by the entity.
Program Management		The process of managing a broadcast entity's library of content and coordinating the delivery of other media content from third party sources.

Program Content	ProgramContent	Content that is typically longer in duration and excludes non-program types.
Protection	Protection	In order to protect against a possible equipment failure, a protection source may be requested so that one or more identical copies of the primary content be running at the same time.
Purge Date	PurgeDate	The date when the content may be deleted from its storage location.
Purge Request	PurgeRequest	A set of instructions that determines when a system should delete content from its current location.
Record Schedule		A set of instructions that determines when a system expects to record content being sent to it, typically via satellite.
Routers	RouterSource	Routers are used to direct content from one location to another
Sales Contract	SalesContract	Commercial content is added to a schedule based on a sales contract which is the legal agreement between the agency or advertiser and the entity that airs the content. It includes a contract number and a number of contract lines.
Satellite	Satellite	Used to uniquely identify a specific orbiting communication satellite used to transfer content from one location to another over great distances.
Schedule Elements	ScheduleElements	Each schedule can be further divided into schedule elements which contain the details of each event that airs and the content information for each event.
Schedule ID	scheduleId	Each unique sequence of program and non-program events is assigned a unique number within the entity's broadcast domain to distinguish one from the other.
Schedule Name	scheduleName	Each sequence of events is usually assigned a unique name as a reference to the airing of the content.

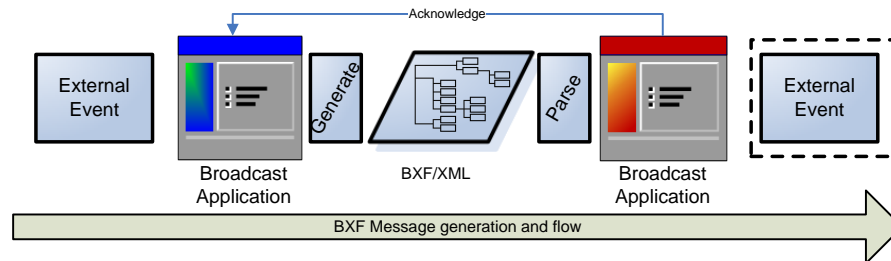


Schedule Types	type	Schedules are either primary or alternate. A primary schedule is the normal planned schedule for a specific date and time. An alternate schedule is a backup to the primary schedule in cases when events are not predictable (e.g. used to manage rain outs or extra innings during a baseball game).
Season	Season	Some series extend over multiple years and each year, a new group of episodes is produced. These are grouped into seasons.
Segment Number	SegmentNumber	A format is used to describe the organization of program content and segments are the place holders for that content. Each segment is given a number in the structure to indicate its order.
Series	Series	Some program content is produced as a continuing storyline. Each program is then referred to as an episode of a series.
SOM	SOM	Start of Material is a point where content playback is to begin.
Spot Sales Classification	SpotSalesClassification	A way used to organize commercial content into sales groups.
Spot Type	SpotType	Used to delineate the various types of non-program type content. Examples include paid commercials, public service announcements (PSAs), promotional announcements (Promos), station identifications (IDs), barter commercials, and other customized values that can be configured.
Start Mode	StartMode	Each event can be started using one of several possible options: <ul style="list-style-type: none"> <li>Follow - when the previous event finishes, start this event</li> <li>Fixed - start this event at the designated time, whether or not the previous event is finished</li> <li>Manual - wait until an operator triggers the event</li> <li>External - wait until an external event has taken place that triggers this event</li> </ul>

Start of Broadcast Day		A time established by the broadcast entity as to when a new broadcast day starts.
Time Code	SmpteTimeCode	A label for the duration for content.
Total Avails	TotalAvails	The sum of the time created by format positions that are allowed to contain commercial content.
Traffic		The process of inserting commercial content into a schedule.
Traffic Caution Flag	TrafficCautionFlag	A flag set by the traffic system to warn the operator of the automation system not to change any of the conditions on the airing of the flagged content.
Transformation Output	TransformationOutput	Content may be encoded in various formats and it may be required to transcode the content from one format into another before being able to air the content.
Transitions	Transitions	The transition from one event to another. Multiple parameters may be set to describe these transitions.
UsagePolicy	UsagePolicy	These are rules that typically limit when or where a piece of content can be used by the entity.
XML Time	XmlTime	A specific time value using hours, minutes, seconds and milliseconds.

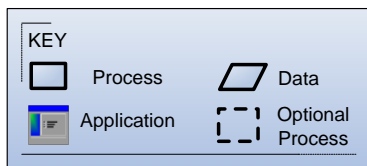
## 6 System Data Flow (Informative)

The following diagrams illustrate examples of information flow using BXF messages. Figure 2: BXF Data Flow, Illustration A shows an example of BXF message processing integrated in end-to-end messages between two applications. Figure 3: BXF Dataflow, Illustration B shows the peer-to-peer design of BXF messages, where any of multiple parties may initiate transactions.

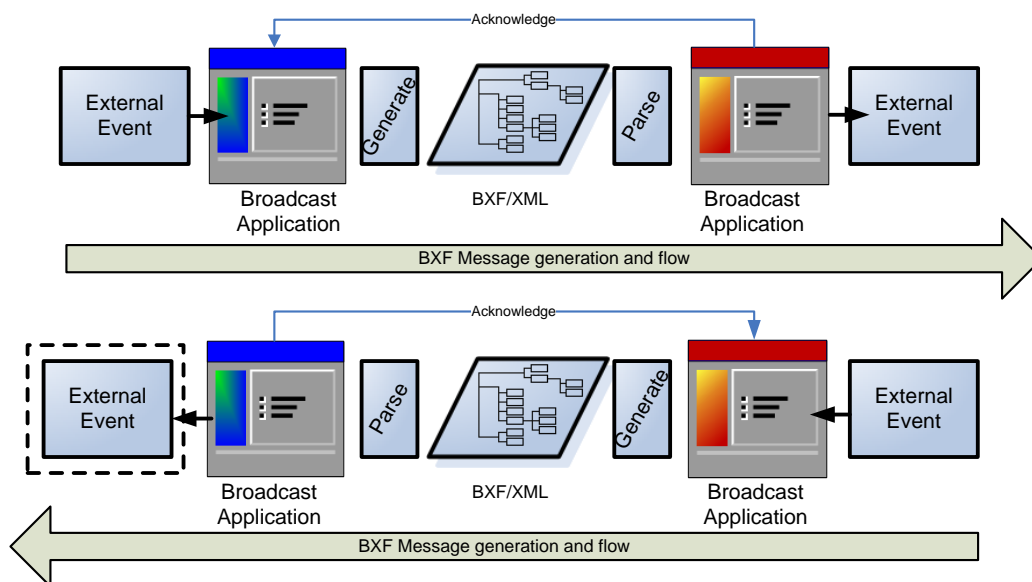


**BXF Data Flow**

1. An external event will cause a Broadcast Application (Blue) to generate a pertinent message for another application
2. Blue application will manipulate internal data and extract it, generating an XML message (conforming to the BFX schema)
3. The message will transverse the BFX network to the target Broadcast Application (Red)
4. Red application will parse the BFX formatted message
5. The receiving application will signal the sending application an acknowledgement of the message receipt
6. The new data may cause an external event on the Red system

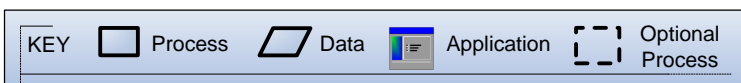


**Figure 2: BFX Data Flow, Illustration A**



#### **BFX Data Flow**

1. An external event will cause a Broadcast Application (Blue) to generate a pertinent message for another application
2. Blue application will manipulate internal data and extract it, generating an XML message (conforming to the BFX schema)
3. The message will transverse the BFX network to the target Broadcast Application (Red)
4. Red application will parse the BFX formatted message
5. The receiving application will signal the sending application an acknowledgement of the message receipt
6. The new data causes an external event on the Red system
7. The Red application will generate a BFX message to the original Blue application in response



**Figure 3: BFX Dataflow, Illustration B**

## 7 Protocol (Normative)

The BXF protocol may be implemented using a variety of transport mechanisms. The protocol supports both connection-oriented and connectionless approaches, two of which are described below: A connection-based transport for asynchronous communication and a connectionless file transport, for off-line and/or large sets of data that need to be communicated. It is important to note that vendors may choose the appropriate transport mechanism for their applications.

As a minimum, a BXF compliant system shall support a connectionless file transport.

### Connection-Oriented Transport

Connection-oriented transport of BXF requires a connection between the sending and receiving devices. BXF supports asynchronous messaging approaches, as described below.

#### 7.1 TCP/IP

TCP/IP protocol may be used for communication. The BXF application shall use a port number that is configurable by installation. BXF standard shall use 14544 and 14545 as default ports.

##### 7.1.1 Connections

Each device using the BXF protocol that receives and responds to messages shall act as a server (or service provider). Each device using the protocol to initiate the sending of messages shall act as a client (or service consumer). Devices that plan to both send and receive messages shall act as both a server and a client.

A client shall initiate the connection to a server. A device that includes both a server and a client shall be responsible for managing its client connection separately from the clients that connect to it. A client shall be allowed to open connections to as many BXF servers as are available.

##### 7.1.2 Sending of Messages

Once a connection is made from a client to a server, only the client may initiate communication. This communication can either be a “push” of information where the client sends data to the server, or a “pull” where the client requests certain information from the server. If there is a need for the server to initiate messages to the client, then a separate connection shall be opened where the client/server roles are reversed.

The initiating message will be consumed by the device’s server and its client will use a separate connection to acknowledge and reply (if applicable) to the original message.

##### 7.1.3 Inactive Connections

It is required that inactive and abnormal connections shall be detected and managed by transport protocols. In addition, clients may monitor the status of its connections to servers by sending **heartbeat** requests as defined later in this standard. Similarly, servers may monitor the status of connected clients and the transport connection by looking for heartbeat requests.

The standard leaves managing failing connections and what to do in each case up to implementation.

##### 7.1.4 List of Devices to Connect To or Accept Connections From

Each device that is configured as a client/server shall store a list of available devices (configured as servers) that it needs to communicate with. This list shall uniquely identify the device and its services. Arrangements for setting up and maintaining this list are left up to implementation by each manufacturer.

### 7.1.5 Initiation of Servers

When a device that is configured as a server is turned on, it shall begin accepting connections. When a client attempts to connect to the server, the server should reference its list of Devices to Accept Connections From (if present) before deciding to accept the connection. The system implementing the protocol must not begin communications until it is able to fully support the messaging which it implements.

### 7.1.6 Timeout of Services

BXF manages a state machine for processing of messages. In order to assure reliable communications, a timeout is specified. The default timeout of the BXF protocol shall be 20 seconds. This timeout shall be defined as the maximum period of elapsed time from the completion of the message transmission, and the acknowledgment response from the receiving system, as measured at the client portion of the session. When this timeout is exceeded, the BXF protocol shall enter a retry loop or generate an error message, as determined by the implementer.

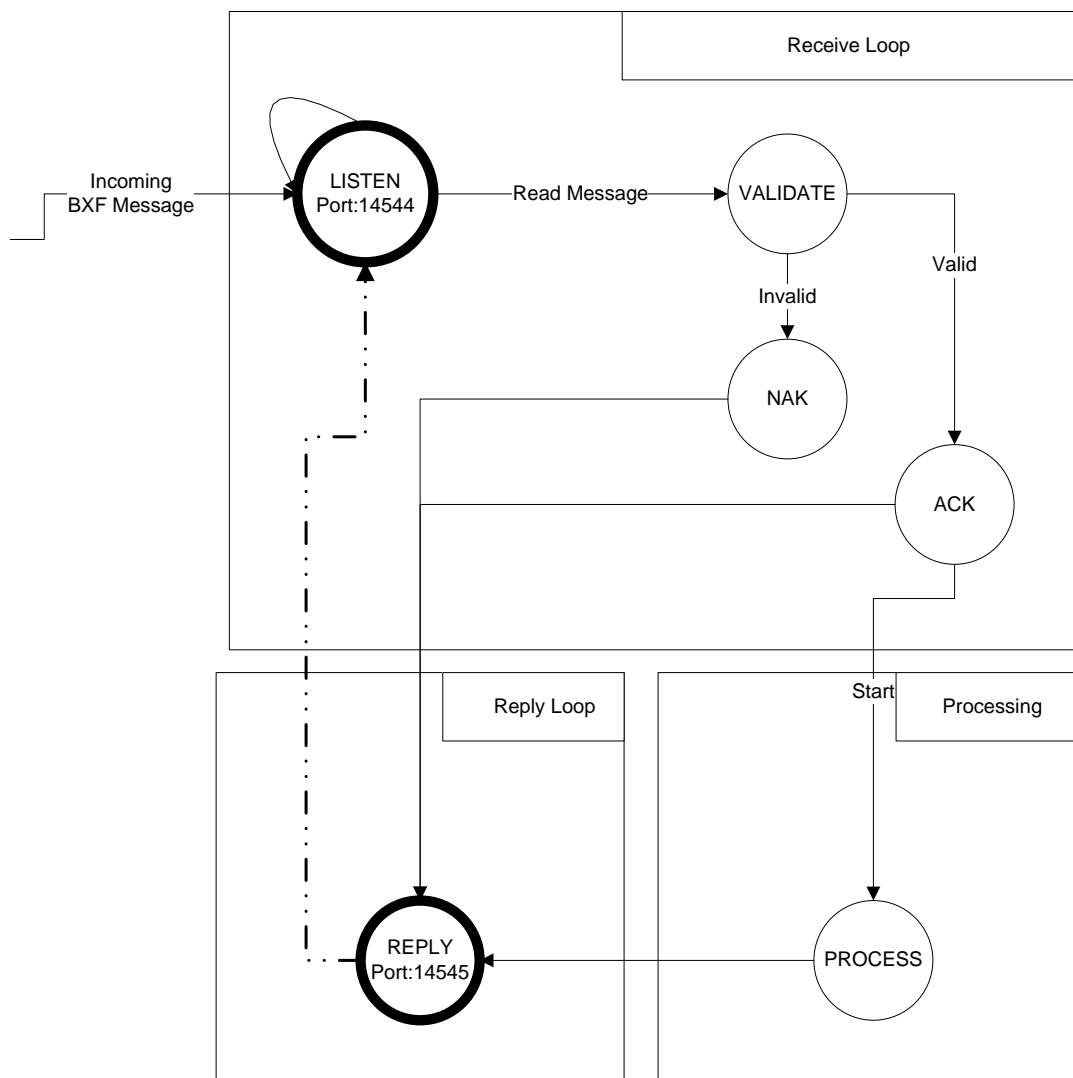
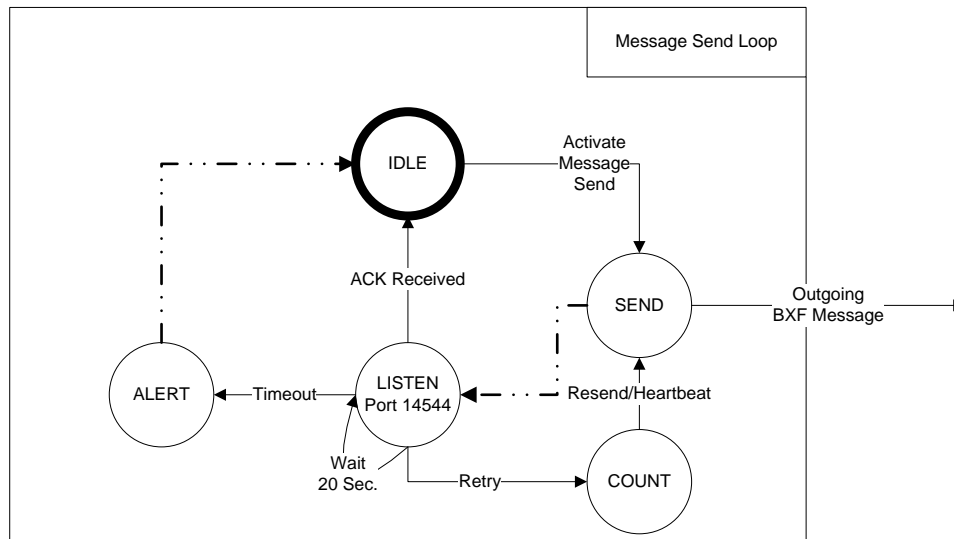


Figure 4: BXF State Machine, Receive



**Figure 5: BXF State Machine, Transmit**

## 7.2 Encryption

System implementers may use methods of encryption, not specified herein, for secure communication within a system. The BXF protocol neither prohibits nor requires any specific security mechanism. It has been designed to be agnostic, and is therefore up to the end user to determine what, if any, security to use

## 7.3 Message format

**All messages in BXF shall be sent as XML documents conforming to the BXF schema as defined at <http://smpte-ra.org/schemas/2021/2008/BXF>.**

### 7.3.1 ACK Message Response

An ACK message shall be sent indicating successful receipt of the message. Success is defined as the message having the following characteristics:

- The message is well-formed (it is an XML message and BXF compliant) in the context of the receiving system and from a valid and recognized source
- The receiving system has implemented support for the message
- The message was received within the configuration timeout period

### 7.3.2 ACK Message Response with Errors or Invalid (NAK)

Any message which fails the above tests shall return a new message with the appropriate error value as defined in the schema.

## 7.4 File-Based Transport

File-Based transfer may be used where large amounts of data need to be communicated from one system to another without the need for acknowledgement, and where timing is not critical. The user simply downloads a file containing the XML document from the originating device and imports it into the receiving device. Alternatively, the files may be pushed or pulled to the receiving device in an automatic process.

#### 7.4.1 File Name

The originating system shall utilize a common naming scheme for the files so that the receiving device can be set up to identify the files. The file name shall be in the format of:

“BXF[Date][Device1][Device2][GUID].xml”

Where: [Date] shall be the year, month, and day that the file was sent (using UTC clock), in the format “yyyymmdd”; [Device1], [Device2] shall be strings up to 14 letters and digits each that identifies the creator and destination of the file; and [GUID] shall be a globally unique identifier. Date, [Device1], [Device2] and [GUID] must match those same fields defined in the header of BXF message carried inside the file.



## 8 System Security (Informative)

The following statements apply to management of security and authentication in BXF messages.

- BXF is a messaging protocol. It does not define an encryption algorithm or prescribe the use of a specific security technology. BXF messages do not preclude the use of external encryption agents, port blocking, access control lists or other security schemes.
- BXF messages are XML documents that can be exchanged among BXF-capable systems independent of the transport medium. Examples of transport mediums include (wired or wireless) real-time exchange using direct connection like IP, Web Services, or SOAP, or off-line exchange using FTP or other file-based methods.
- BXF messages specify the use of a GUID whenever appropriate (as defined in the schema) to refer to systems, users, processes and events in order guard against message spoofing, although this mechanism is not intended to be the only one employed.
- BXF messages support journaling; journaling in this context means that BXF messages carry information that enables applications to record each transaction exchange between systems using BXF.
- Each BXF message can carry the information identified in the table below.

## Part 2 (Informative)

### 9 Configuration

This section lists those elements in the BXF Schema which do not have specific enumerations. It is expected that values for these elements would be established between the two entities that plan to use the BXF Schema to communicate metadata changes and information.

**Table 1: Configuration Options**

<b>Configuration Options in BXF Schema based on version 0.901</b>				
<b><u>Configuration Name</u></b>	<b><u>Filename</u></b>	<b><u>Elements or Attributes</u></b>	<b><u>Description</u></b>	<b><u>Examples</u></b>
AgencyCode	NonProgramDetail.xsd	AgencyCode	List of Agency Codes	
AlternateIdType	BxfContentId.xsd	idType	Type of alternate IDs	ISCI
AlternateIdSource	BxfContentId.xsd	authoritativeSource	The source of the content that is using the alternative ID	Traffic; Automation; CDS; Program Management
AssetName	Location.xsd	assetName	List of tape storage formats	BetaSp; DigiBeta; MiniDV; etc.
Classification	NonProgramEvent.xsd	Classification	List of program or spot classifications that may restrict the movement of a program or spot from one event to another by the operator.	
ContentType	ScheduledEvent.xsd	ContentType	List of Content Types	Network, local, entertainment, news
FederalSource	EventData.xsd	FederalSource	List of defined federal sources for broadcast content that will vary by country	Live, recorded, network
MacroName	Macro.xsd	MacroName	List of Macro Names	MACRO1; MACRO2
MessageDestination	BXFSchema.xsd	destination	Device or Application Names of the intended destination of a BXF message	Traffic; Automation; CDS ;Program Management
MessageOrigin	BXFSchema.xsd	origin	Device or Application Names of the system originating the BXF message	Traffic; Automation; CDS; Program Management
NonPrimaryEventName	NonPrimaryEvent.xsd	NonPrimaryEventName	List of NonPrimary	Key, GPI, Tone,

Configuration Options in BXF Schema based on version 0.901				
<u>Configuration Name</u>	<u>Filename</u>	<u>Elements or Attributes</u>	<u>Description</u>	<u>Examples</u>
			Event Types	Audio or Video Effects
ProductCode	NonProgramDetail.xsd	ProductCode	List of Product Codes that categorize the product	
ProtectionSourceName	EventData.xsd	ProtectionSourceName	Name of the type of protection source to be used	
RouterSourceName	Location.xsd	RouterSource\Name	List of Router Source Names	ROUTER1; ROUTER2
SpotSalesClassification	NonProgramEvent.xsd	SpotSalesClassification	List of Rate section or priority code for the spot	
SpotType	NonProgramDetail.xsd	SpotType	List of NonProgram Types	BarterSpot; LocalAvail; Promo; PSA; ID; comments
TransitionPattern	Video.xsd	TransitionPattern	Available patterns for transitions from one video source to another	

## 9.1 Configuration – Procedure

When one system needs to provide for another a list of valid configuration items, it is possible to query that system for enumerations for those items that are not specifically enumerated in the schema. This can be done through the “messageType=Request” where the BxfQuery specifies the specific element and the ReturnStructure is set to “Configuration”. The resulting message should provide all of the valid enumerations that the system recognizes. This can be done in both directions depending on the flexibility of each system to recognize and set appropriate values.

## 9.2 Configuration – Non-schema Settings

Each system is responsible for handling the conversion of time received in a BXF message to its own appropriate start of broadcast day.

**Start of Broadcast Day = “BxfTimeType Value”**

Interruptions in communication during the receipt of any BXF message shall be considered in error if this configurable timeout is exceeded.

**Message Timeout = integer value set to 20 seconds by default**

## 10 Bibliography (Informative)

AD-ID LLC, Ad-ID, Advertising Digital Identification, LLC, Charlotte, NC

ATSC A/53E ATSC Digital Television Standard, Revision E with Amendment No. 1, Advanced Television Systems Committee, Washington, DC, 18 April 2006

ATSC A/65C Program and System Information Protocol for Terrestrial Broadcast and Cable, Revision C with Amendment No. 1, Advanced Television Systems Committee, 9 May 2006

ATSC A/76 Programming Metadata Communication Protocol Standard, Advanced Television Systems Committee, Washington, DC, 10 November 2004

ATSC Code Point Registry, Advanced Television Systems, Committee, Washington, DC

Berners-Lee, T et al., IETF RFC3986 – Uniform Resource Identifiers (URI): General Syntax, The Internet Society, The Internet Engineering Task Force, 2005

CEA-708-C, Digital Television (DTV) Closed Captioning, Consumer Electronics Association

ISO 20924-1:200X Information and documentation – Version Identifier for Audiovisual Works (V-ISAN) – Part 1: Format and Use

ISO 15706:2002 Information and Documentation – International Standard Audiovisual Number (ISAN)

ISO/IEC 13818-2:2000, MPEG-2 (for conditional access descriptor) Information Technology – Generic Coding of Moving Pictures and Associated Audio Information: Video

Leach, P. and M. Mealling and E. Salz, A Universally Unique Identifier (UUID), 2005 IETF RCF4122

W3, XML Schema, W3C Recommendation, 2 May 2001

W3, XML Schema Part 1: Structures Second Edition, W3C Recommendation, 28 October 2004

W3, XML Schema Part 2: Datatypes Second Edition, W3C Recommendation, 28 October 2004

## Annex A - Use Cases (Informative)

### A.1 Metadata update

**Context of Use:** The program management system is a repository for program scheduling information for the broadcast facility. Changes to the schedule by programming and its related metadata must be disseminated to the other stakeholders. Likewise, the traffic system maintains a list of formats that each program and/or time period uses to represent potential sales inventory. The combination of format and program schedule metadata is required to create a detailed event playlist for automation. To synchronize traffic and programming several transactions are required. This includes the process of initializing, adding, and deleting formats, programs and program schedules as well as scheduling specific title/episode information for a program.

The example below represents only one of several possible transactions. This is the updating of a traffic format structure initiated by the traffic system and sent to the programming system.

**Origination System:** Traffic

**Destination System:** Program Management

**Trigger:** Traffic changed the format in its system and is updating programming with the change.

**Additional Stakeholders and Interests:**

Traffic System – Creates format structures and needs to disseminate this data to programming when changes are made.

Program Management System – To properly time the actual length of a program, the format details are required. This tells the program department how much time must be reserved for non-programming content. Programming may need to adjust the length of the program content in order to keep the total length of the scheduled program within designated parameters.

Automation User- Accurate program timings are moved further up the scheduling decision path and improve the likelihood that the program's actual aired length matches to the planned scheduled length reducing last minute changes by the engineering staff.

QC staff- Reduces the number of last minute program changes that require additional approval by QC staff. If programming has accurate timings during the scheduling process they can avoid program modifications that might affect a program's QC status.

**Preconditions:** A session has been established.

**Main Success Scenario:**

*Format Change or Update:*

1. Traffic changes a format in their system and sends Programming the change that is the complete format structure including the changes made.
2. Programming accepts the format change and updates its records and replies back to track with a reply indicating that the update was successful.

*Failure or other issues:*

3. The format may already be in use on the schedule and changes to the format do not automatically get applied to all future dates. It is up to the scheduling or traffic system to cast the format change onto the schedule and send the schedule changes that this generates. If programming does not recognize the format in its system, then it can respond that the format was not updated or it can assume it needs to add the format as a new record. This would result in a different reply to the traffic system.
4. Use Case ends.

*Example: Traffic changes an existing Format and sends the Program Management System the changes.*

```
<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-6000-11D3-8CFE-0050048383C9" dateTime="2006-08-16T20:44:43.16"
messageType="Information" origin="Traffic System" originType="Traffic" destination="Program Management" userName="Traffic
System User" xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
  <BxfData action="update">
    <Format action="update">
      <FormatId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391D9</FormatId>
      <FormatLength>
        <SmpteDuration>
          <SmpteTimeCode>00:30:00:00</SmpteTimeCode>
        </SmpteDuration>
      </FormatLength>
      <FormatName>SampleFormat_PrimeTime_Sitcom</FormatName>
      <FormatStructure>
        <FormatElements>
          <PrimaryElementId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391D1</PrimaryElementId>
          <FormatElementType>Break</FormatElementType>
          <PrimaryOffset>
            <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
          </PrimaryOffset>
          <PrimaryDuration variable="false">
            <SmpteDuration>
              <SmpteTimeCode>00:00:30:00</SmpteTimeCode>
            </SmpteDuration>
          </PrimaryDuration>
        </FormatElements>
        <FormatElements>
          <PrimaryElementId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391D2</PrimaryElementId>
          <FormatElementType>Segment</FormatElementType>
          <PrimaryOffset>
            <SmpteTimeCode>00:00:30:00</SmpteTimeCode>
          </PrimaryOffset>
          <PrimaryDuration variable="true">
            <SmpteDuration>
              <SmpteTimeCode>00:09:00:00</SmpteTimeCode>
            </SmpteDuration>
          </PrimaryDuration>
          <NonPrimaryElements>
            <NonPrimaryElementId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-
0038338391D2</NonPrimaryElementId>
            <NonPrimaryOffset>
              <OffsetTime>
                <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
              </OffsetTime>
            </NonPrimaryOffset>
            <NonPrimaryDuration>
              <SmpteDuration>
                <SmpteTimeCode>00:00:10:00</SmpteTimeCode>
              </SmpteDuration>
            </NonPrimaryDuration>
            <NonPrimaryDescription>Station ID Bug</NonPrimaryDescription>
          </NonPrimaryElements>
        </FormatElements>
      </FormatStructure>
    </Format>
  </BxfData>
</BxfMessage>
```

```

<FormatElements>
  <PrimaryElementId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391D3</PrimaryElementId>
  <FormatElementType>Break</FormatElementType>
  <PrimaryOffset>
    <SmpteTimeCode>00:09:30:00</SmpteTimeCode>
  </PrimaryOffset>
  <PrimaryDuration variable="false">
    <SmpteDuration>
      <SmpteTimeCode>00:00:30:00</SmpteTimeCode>
    </SmpteDuration>
  </PrimaryDuration>
</FormatElements>
<FormatElements>
  <PrimaryElementId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391D4</PrimaryElementId>
  <FormatElementType>Segment</FormatElementType>
  <PrimaryOffset>
    <SmpteTimeCode>00:10:00:00</SmpteTimeCode>
  </PrimaryOffset>
  <PrimaryDuration variable="true">
    <SmpteDuration>
      <SmpteTimeCode>00:09:00:00</SmpteTimeCode>
    </SmpteDuration>
  </PrimaryDuration>
  <NonPrimaryElements>
    <NonPrimaryElementId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-
0038338391D4</NonPrimaryElementId>
    <NonPrimaryOffset>
      <OffsetTime>
        <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
      </OffsetTime>
    </NonPrimaryOffset>
    <NonPrimaryDuration>
      <SmpteDuration>
        <SmpteTimeCode>00:00:10:00</SmpteTimeCode>
      </SmpteDuration>
    </NonPrimaryDuration>
    <NonPrimaryDescription>Station ID Bug for segment 2</NonPrimaryDescription>
  </NonPrimaryElements>
</FormatElements>
<FormatElements>
  <PrimaryElementId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391D5</PrimaryElementId>
  <FormatElementType>Break</FormatElementType>
  <PrimaryOffset>
    <SmpteTimeCode>00:19:00:00</SmpteTimeCode>
  </PrimaryOffset>
  <PrimaryDuration variable="true">
    <SmpteDuration>
      <SmpteTimeCode>00:00:45:00</SmpteTimeCode>
    </SmpteDuration>
  </PrimaryDuration>
</FormatElements>
<FormatElements>
  <PrimaryElementId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391D6</PrimaryElementId>
  <FormatElementType>Segment</FormatElementType>
  <PrimaryOffset>
    <SmpteTimeCode>00:19:45:00</SmpteTimeCode>
  </PrimaryOffset>
  <PrimaryDuration variable="true">
    <SmpteDuration>
      <SmpteTimeCode>00:10:00:00</SmpteTimeCode>
    </SmpteDuration>
  </PrimaryDuration>
  <NonPrimaryElements>

```

```

        <NonPrimaryElementId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-
0038338391D6</NonPrimaryElementId>
        <NonPrimaryOffset>
            <OffsetTime>
                <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
            </OffsetTime>
        </NonPrimaryOffset>
        <NonPrimaryDuration>
            <SmpteDuration>
                <SmpteTimeCode>00:00:10:00</SmpteTimeCode>
            </SmpteDuration>
        </NonPrimaryDuration>
        <NonPrimaryDescription>Station ID Bug for segment 3</NonPrimaryDescription>
    </NonPrimaryElements>
</FormatElements>
<FormatElements>
    <PrimaryElementId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391D7</PrimaryElementId>
    <FormatElementType>Break</FormatElementType>
    <PrimaryOffset>
        <SmpteTimeCode>00:29:45:00</SmpteTimeCode>
    </PrimaryOffset>
    <PrimaryDuration variable="false">
        <SmpteDuration>
            <SmpteTimeCode>00:00:15:00</SmpteTimeCode>
        </SmpteDuration>
    </PrimaryDuration>
</FormatElements>
</FormatStructure>
</Format>
</BxfData>
</BxfMessage>

```

## A.2 Schedule

**Context of Use:** After the preparation of the daily log, events (which typically include programming, commercials, promos/PSAs and other interstitial material) are sent to the automation system. Further processing is needed in many cases to prepare these events for airing through the automation system. This processing prepares the events to be automation-ready which can be executed for playout. A single or a group of events can be sent at one time. This use cases exemplifies the process to accept new or updated events.

**Origination System:** Traffic

**Destination System:** Automation

**Trigger:** Events submitted from the traffic system.

**Additional Stakeholders and Interests:**

Traffic System: Creates the completed schedule and submits it to the automation system for execution.

Automation System: Accepts and validates the schedule received from traffic, and executes said schedule at the appropriate time.

**Preconditions:** Events are available for playout.



## Main Success Scenario:

### Traffic System:

1. Traffic user selects a single or series of traffic events to be sent to the automation system.
2. Traffic user submits traffic events to the automation system.

### Automation System:

3. Traffic events are accepted in automation system.
4. Traffic events are converted to automation events.
5. Automation database populates fields needed to execute playout (playout information includes timing, media, device, format, etc.)
6. Automation submits updated events (schedule and timing) information to the traffic database.
7. Use Case ends.

*Example: A Playlist schedule for the Evening News on Network Affiliate WXXX with two local breaks.*

```
<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F2" dateTime="2006-09-05T13:38:26.28"
messageType="Information" origin="Traffic System" originType="Traffic" userName="Traffic System User" destination="Automation"
xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd"
xmlns:pmcp="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1"
pmcp:schemaLocation="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1/pmcp31.xsd">
  <BxfData action="add">
    <Schedule type="Primary" scheduleId="urn:uuid:00000000-0000-0000-0000-0038338391E0" scheduleName="WXXX Ch 6-
1" scheduleStart="2006-06-21T17:30:00.00" scheduleEnd="2006-06-21T17:30:00.00">
      <Channel channelNumber="6-1" status="active" type="digital_television" ca="false" shortName="WXXX-DT"
outOfBand="true">
        <pmcp:Name lang="eng">WXXX-DT Ch 6-1</pmcp:Name>
      </Channel>
      <ScheduledEvent>
        <ScheduleElements>
          <EventData eventType="Primary-ProgramHeader">
            <EventId>
              <EventId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F1</EventId>
            </EventId>
            <PrimaryEvent>
              <ProgramEvent>
                <SegmentNumber>1</SegmentNumber>
                <ProgramName>Evening News</ProgramName>
              </ProgramEvent>
            </PrimaryEvent>
            <StartDateTime nominalFlag="false">
              <SmpteDateTime broadcastDate="2006-10-01">
                <SmpteTimeCode>15:30:00:00</SmpteTimeCode>
              </SmpteDateTime>
            </StartDateTime>
            <LengthOption>
              <Duration>
                <SmpteDuration>
                  <SmpteTimeCode>00:12:00:00</SmpteTimeCode>
                </SmpteDuration>
              </Duration>
            </LengthOption>
            <StartMode>Fixed</StartMode>
            <EndMode>Duration</EndMode>
          </EventData>
        </ScheduleElements>
      </ScheduledEvent>
    </Schedule>
  </BxfData>
</BxfMessage>
```

```

</EventData>
<Content>
  <ContentId>
    <HouseNumber>Network-1</HouseNumber>
  </ContentId>
  <Name>Evening News Segment-1</Name>
  <Media>
    <BaseBand/>
    <MediaLocation>
      <Location>
        <RouterSource>
          <Name>NEWS</Name>
          <CrossPoint>PCL</CrossPoint>
        </RouterSource>
      </Location>
      <SOM>
        <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
      </SOM>
      <Duration>
        <SmpteDuration>
          <SmpteTimeCode>00:12:00:00</SmpteTimeCode>
        </SmpteDuration>
      </Duration>
    </MediaLocation>
  </Media>
</Content>
</ScheduleElements>
<ScheduleElements>
  <EventData eventType="Primary-BreakHeader">
    <EventId>
      <EventId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F2</EventId>
    </EventId>
    <PrimaryEvent>
      <NonProgramEvent>
        <Details>
          <SpotType>Local</SpotType>
          <AdvertiserName>Johnson Ford Motors</AdvertiserName>
          <Product>
            <Name>Car Sales Event</Name>
          </Product>
        </Details>
      </NonProgramEvent>
    </PrimaryEvent>
    <StartDateTime nominalFlag="false">
      <SmpteDateTime broadcastDate="2006-10-01">
        <SmpteTimeCode>15:42:00:00</SmpteTimeCode>
      </SmpteDateTime>
    </StartDateTime>
    <LengthOption>
      <Duration>
        <SmpteDuration>
          <SmpteTimeCode>00:00:30:00</SmpteTimeCode>
        </SmpteDuration>
      </Duration>
    </LengthOption>
    <StartMode>Follow</StartMode>
    <EndMode>Duration</EndMode>
  </EventData>
  <Content>
    <ContentId>
      <HouseNumber>JFMC1201</HouseNumber>
      <AlternateId idType="ISCI" authoritativeSource="AAAA">JFMC1201</AlternateId>
    </ContentId>
    <Name>Johnson Motors Super Sales Event</Name>
  </Content>

```

```

<Media>
  <BaseBand/>
  <MediaLocation>
    <Location>
      <AssetServer fileTransferAllowed="true" playoutAllowed="true">
        <PathName>C:\MediaFiles\Commercials</PathName>
      </AssetServer>
    </Location>
    <SOM>
      <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
    </SOM>
    <Duration>
      <SmpteDuration>
        <SmpteTimeCode>00:00:30:00</SmpteTimeCode>
      </SmpteDuration>
    </Duration>
  </MediaLocation>
</Media>
</Content>
</ScheduleElements>
<ScheduleElements>
  <EventData eventType="Primary-ProgramHeader">
    <EventId>
      <EventId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F3</EventId>
    </EventId>
    <PrimaryEvent>
      <ProgramEvent>
        <SegmentNumber>2</SegmentNumber>
        <ProgramName>Evening News</ProgramName>
      </ProgramEvent>
    </PrimaryEvent>
    <StartDateTime nominalFlag="false">
      <SmpteDateTime broadcastDate="2006-10-01">
        <SmpteTimeCode>15:42:30:00</SmpteTimeCode>
      </SmpteDateTime>
    </StartDateTime>
    <LengthOption>
      <Duration>
        <SmpteDuration>
          <SmpteTimeCode>00:10:00:00</SmpteTimeCode>
        </SmpteDuration>
      </Duration>
    </LengthOption>
    <StartMode>Fixed</StartMode>
    <EndMode>Duration</EndMode>
  </EventData>
<Content>
  <ContentId>
    <HouseNumber>Network-1</HouseNumber>
  </ContentId>
  <Name>Evening News Segment-2</Name>
  <Media>
    <BaseBand/>
    <MediaLocation>
      <Location>
        <RouterSource>
          <Name>NEWS</Name>
          <CrossPoint>PCL</CrossPoint>
        </RouterSource>
      </Location>
      <SOM>
        <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
      </SOM>
      <Duration>

```

```

        <SmpteDuration>
        <SmpteTimeCode>00:10:00:00</SmpteTimeCode>
        </SmpteDuration>
    </Duration>
</MediaLocation>
</Media>
</Content>
</ScheduleElements>
<ScheduleElements>
    <EventData eventType="Primary-BreakHeader">
        <EventId>
            <EventId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F4</EventId>
        </EventId>
        <PrimaryEvent>
            <NonProgramEvent>
                <Details>
                    <SpotType>Local</SpotType>
                    <AdvertiserName>Fortified Banks</AdvertiserName>
                    <Product>
                        <Name>Discount Mortgage Promotion</Name>
                    </Product>
                </Details>
            </NonProgramEvent>
        </PrimaryEvent>
        <StartDateTime nominalFlag="false">
            <SmpteDateTime broadcastDate="2006-10-01">
                <SmpteTimeCode>15:52:30:00</SmpteTimeCode>
            </SmpteDateTime>
        </StartDateTime>
        <LengthOption>
            <Duration>
                <SmpteDuration>
                    <SmpteTimeCode>00:00:30:00</SmpteTimeCode>
                </SmpteDuration>
            </Duration>
        </LengthOption>
        <StartMode>Follow</StartMode>
        <EndMode>Duration</EndMode>
    </EventData>
    <Content>
        <ContentId>
            <HouseNumber>FBIN0901</HouseNumber>
            <AlternateId idType="ISCI" authoritativeSource="AAAA">FBIN0901</AlternateId>
        </ContentId>
        <Name>Discount Mortgage Promotion</Name>
        <Media>
            <BaseBand/>
            <MediaLocation>
                <Location>
                    <AssetServer fileTransferAllowed="true" playoutAllowed="true">
                        <PathName>C:\MediaFiles\Commercials</PathName>
                    </AssetServer>
                </Location>
                <SOM>
                    <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
                </SOM>
                <Duration>
                    <SmpteDuration>
                        <SmpteTimeCode>00:00:30:00</SmpteTimeCode>
                    </SmpteDuration>
                </Duration>
            </MediaLocation>
        </Media>
    </Content>

```

```

</ScheduleElements>
<ScheduleElements>
  <EventData>
    <EventId>
      <EventId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F5</EventId>
    </EventId>
    <PrimaryEvent>
      <ProgramEvent>
        <SegmentNumber>3</SegmentNumber>
        <ProgramName>Evening News</ProgramName>
      </ProgramEvent>
    </PrimaryEvent>
    <StartDateTime nominalFlag="false">
      <SmpteDateTime broadcastDate="2006-10-01">
        <SmpteTimeCode>15:53:00:00</SmpteTimeCode>
      </SmpteDateTime>
    </StartDateTime>
    <LengthOption>
      <Duration>
        <SmpteDuration>
          <SmpteTimeCode>00:07:00:00</SmpteTimeCode>
        </SmpteDuration>
      </Duration>
    </LengthOption>
    <StartMode>Fixed</StartMode>
    <EndMode>Duration</EndMode>
  </EventData>
  <Content>
    <ContentId>
      <HouseNumber>Network-1</HouseNumber>
    </ContentId>
    <Name>Evening News Segment-3</Name>
    <Media>
      <BaseBand/>
      <MediaLocation>
        <Location>
          <RouterSource>
            <Name>NEWS</Name>
            <CrossPoint>PCL</CrossPoint>
          </RouterSource>
        </Location>
        <SOM>
          <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
        </SOM>
        <Duration>
          <SmpteDuration>
            <SmpteTimeCode>00:07:00:00</SmpteTimeCode>
          </SmpteDuration>
        </Duration>
      </MediaLocation>
    </Media>
  </Content>
</ScheduleElements>
</ScheduledEvent>
</Schedule>
</BxfData>
</BxfMessage>

```

## A.3 Dub order

**Context of Use:** Content is inventoried in traffic systems as the control point for the appropriate use of the material. Because the traffic system is the repository for the disposition of the information the dub process helps to administer the external content inventory. The dub process communicates the need for the content to be dubbed onto a medium (i.e. server, cart, etc.) for convenient playback.

**Origination System:** Traffic

**Destination System:** Automation

**Trigger:** Traffic user receives new content or there is a need to convert from tape-storage to server-storage.

**Additional Stakeholders and Interests:**

Automation User: Executes the ingesting of material, linking the metadata received in the dub-order from traffic to the essence either already stored or due to be ingested.

Traffic User: Sends the dub order to automation, thereby sharing metadata related to the essence in question with the automation system.

**Preconditions:** There is a need to create an order to dub, or purge content within the facility.

**Main Success Scenario:**

*Traffic department:*

1. Traffic user request content items to be placed on a dub order.
2. Traffic user submits dub order to automation system.

*Automation system:*

3. Automation user acknowledges new order for dub of content.
4. Automation system submits status for dub order to the traffic system.

*Traffic system:*

5. Traffic system accepts status and updates its database with the information from the automation system.
6. Use Case ends.

*Example: Message and metadata to dub content essence*

```
<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0048338391E1" messageType="Information" dateTime="2006-08-
25T13:19:41.28" origin="Traffic System" originType="Traffic" destination="Automation" userName="Traffic System User"
xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
  <BxfData action="add">
    <ContentTransfer transferId="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" transferType="Duplication"
priority="Normal">
      <Content>
        <NonProgramContent>
          <Details>
            <SpotType>Promo</SpotType>
          </Details>
        </NonProgramContent>
      </Content>
    </ContentTransfer>
  </BxfData>
</BxfMessage>
```

```

    <ContentMetaData>
      <ContentId>
        <HouseNumber>ITVS_HYP</HouseNumber>
      </ContentId>
      <Name>ITVS HYPERBOLE</Name>
      <Description/>
    </ContentMetaData>
  </NonProgramContent>
</Content>
<Source>
  <Media>
    <BaseBand>
      <Audio>
        <DigitalAudio>
          <Ac3Audio audioId="1"/>
        </DigitalAudio>
      </Audio>
      <Video>
        <Encoding>MPEG-2</Encoding>
        <DigitalVideo>true</DigitalVideo>
        <Format>720p</Format>
        <AspectRatio>4:3</AspectRatio>
      </Video>
    </BaseBand>
    <MediaLocation>
      <Location>
        <PhysicalAsset assetName="Tape">
          <MediaReferenceName>31-109</MediaReferenceName>
        </PhysicalAsset>
      </Location>
      <SOM>
        <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
      </SOM>
      <Duration>
        <SmpteDuration>
          <SmpteTimeCode>00:00:30:00</SmpteTimeCode>
        </SmpteDuration>
      </Duration>
    </MediaLocation>
  </Media>
</Source>
<Destination>
  <Media>
    <BaseBand/>
    <MediaLocation>
      <Location>
        <AssetServer playlistAllowed="true" fileTransferAllowed="true">
          <PathName>C:\media\commercials</PathName>
          <ReferenceName>AssetServerA</ReferenceName>
        </AssetServer>
      </Location>
      <SOM>
        <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
      </SOM>
      <Duration>
        <SmpteDuration>
          <SmpteTimeCode>00:00:30:00</SmpteTimeCode>
        </SmpteDuration>
      </Duration>
      <ArchiveGroup>
        <ArchiveName>Interstitial</ArchiveName>
      </ArchiveGroup>
    </MediaLocation>
  </Media>

```

```
<UsagePolicy>
  <PurgeDate>9999-12-31T00:00:00.00</PurgeDate>
</UsagePolicy>
</Destination>
</ContentTransfer>
</BxfData>
</BxfMessage>
```



## A.4 Purge order

**Context of Use:** Content is inventoried in traffic systems as the control point for the appropriate use of the material. Because the traffic system is the repository for the disposition of the information the purge process (along with the dub order) also administrates the external content inventory. At the conclusion of the allowable run of the content a purge of the material from the playback medium is normally requested.

**Origination System:** Traffic

**Destination System:** Automation

**Trigger:** Dated content needs to be removed.

**Additional Stakeholders and Interests:**

Automation User: Accepts the purge order from traffic and removes the associated content from its inventory.

Traffic User: Sends an order to remove content from inventory.

**Preconditions:** There is a need to purge content within the facility.

**Main Success Scenario:**

*Traffic system:*

1. Traffic user requests content items to be placed on purge order.
2. Traffic user submits purge order to automation system.

*Automation system:*

3. Automation user acknowledges purge order to automation system.
4. Automation system submits status for purge order to the traffic system.

*Traffic system:*

5. Traffic system accepts status and updates its database with the information from the automation system.
6. Use Case ends.

*Example: Purge Media by adding a new purge order for Media #311*

```
<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-2222-22E3-9AFF-0038338391E1" messageType="Information" dateTime="2006-08-16T20:44:43.16" origin="Traffic System" originType="Traffic" destination="Automation" userName="Traffic System User"
xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
  <BxfData action="add">
    <ContentTransfer transferId="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" transferType="Purge"
priority="Normal">
      <Content user="Traffic User">
        <ProgramContent>
          <ContentMetaData>
            <ContentId>
              <HouseNumber>311</HouseNumber>
            </ContentId>
            <Name>A2: SIGN ON</Name>
          </ContentMetaData>
        </ProgramContent>
      </Content>
    </ContentTransfer>
  </BxfData>
</BxfMessage>
```

## A.5 Record order

**Context of Use:** Content is inventoried in traffic systems as the control point for the appropriate use of the material. Because the traffic system is the repository for the disposition of the information, the live-recording process (along with the dub and purge order) also administrates the external content inventory. At a particular time of day, a recording of a show can be requested.

**Origination System:** Traffic

**Destination System:** Automation

**Trigger:** Traffic user is alerted to the opportunity of a satellite/studio-fed show that needs to be captured and stored on local media.

**Additional Stakeholders and Interests:**

Automation User: Accepts an order to obtain content from a particular source fed at a particular time.

Traffic User: Uses the live feed schedule to plan for the recording of content by the automation system, and shares this information with said system for the storage of live material. This content can then be used at a later time.

**Preconditions:** There is a need to record a live show within the facility.

**Main Success Scenario:**

*Traffic department:*

1. Traffic user request content items to be placed on a record order.
2. Traffic user submits record order to automation system.

*Automation system:*

3. Automation user acknowledges new order for recording of content.
4. Automation system submits status for record order to the traffic system.

*Traffic system:*

5. Traffic system accepts status and updates its database with the information from the automation system.
6. Use Case ends.

*Example: Message and metadata to schedule recording of content*

```
<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-2223-22E3-9AFF-0038338391E1" messageType="Information" dateTime="2006-08-25T13:08:59.91" origin="Traffic System" originType="Traffic" destination="Automation" userName="Traffic System User"
xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
  <BxfData action="add">
    <ContentTransfer transferId="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" transferType="Recording"
priority="Normal" recordEventStart="2006-10-01T03:00:00.00" recordEventEnd="2006-10-01T03:29:30.00">
      <Content>
        <ProgramContent>
          <ContentMetaData>
            <ContentId>
              <HouseNumber>PBC5-1</HouseNumber>
            </ContentId>
          </ContentMetaData>
        </ProgramContent>
      </Content>
      <Source>
        <Media>
          <BaseBand>
            <Audio>
              <DigitalAudio>
                <Ac3Audio audioId="1"/>
              </DigitalAudio>
            </Audio>
            <Video>
              <Encoding>MPEG-2</Encoding>
              <DigitalVideo>true</DigitalVideo>
              <Format>720p</Format>
              <AspectRatio>4:3</AspectRatio>
            </Video>
          </BaseBand>
          <MediaLocation>
            <Location>
              <Satellite>
                <SatelliteName>XYZ1</SatelliteName>
                <Transponder>
                  <Polarity>Horizontal</Polarity>
                  <TransponderNumber>501</TransponderNumber>
                </Transponder>
                <Receiver>RCVR2</Receiver>
                <Encoder>ENC1</Encoder>
              </Satellite>
            </Location>
            <SOM>
              <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
            </SOM>
            <Duration>
              <SmpteDuration>

```

```

        <SmpTimeCode>00:29:30:00</SmpTimeCode>
      </SmpDuration>
    </Duration>
  </MediaLocation>
</Media>
</Source>
<Destination>
  <Media>
    <BaseBand/>
    <MediaLocation>
      <Location>
        <PhysicalAsset assetName="Tape">
          <MediaReferenceName>PBC5-1</MediaReferenceName>
        </PhysicalAsset>
      </Location>
      <SOM>
        <SmpTimeCode>00:00:00:00</SmpTimeCode>
      </SOM>
      <Duration>
        <SmpDuration>
          <SmpTimeCode>00:29:30:00</SmpTimeCode>
        </SmpDuration>
      </Duration>
      <ArchiveGroup>
        <ArchiveName>Archive A</ArchiveName>
      </ArchiveGroup>
    </MediaLocation>
  </Media>
</Destination>
</ContentTransfer>
<ContentTransfer transferId="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E2" transferType="Recording"
priority="Normal" recordEventStart="2006-10-01T06:00:00.00" recordEventEnd="2006-10-01T06:28:46.00">
  <Content>
    <ProgramContent>
      <ContentMetaData>
        <ContentId>
          <HouseNumber>6BC-102</HouseNumber>
        </ContentId>
        <Name>A Half Hour Program</Name>
      </ContentMetaData>
    </ProgramContent>
  </Content>
</Source>
  <Media>
    <BaseBand>
      <Audio>
        <DigitalAudio>
          <Ac3Audio audioId="1"/>
        </DigitalAudio>
      </Audio>
      <Video>
        <Encoding EncodingReference="Digital Betacam">MPEG-2</Encoding>
        <Format>480i</Format>
        <AspectRatio>4:3</AspectRatio>
      </Video>
      <Captions>
        <Caption608/>
      </Captions>
    </BaseBand>
    <MediaLocation>
      <Location>
        <Satellite>
          <SatelliteName>XYZ1</SatelliteName>
          <Transponder>

```

```

        <Polarity>Horizontal</Polarity>
        <TransponderNumber>500 </TransponderNumber>
    </Transponder>
    <Receiver>RCVR1</Receiver>
    <Encoder>ENC2</Encoder>
</Satellite>
</Location>
<SOM>
    <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
</SOM>
<Duration>
    <SmpteDuration>
        <SmpteTimeCode>00:28:46:00</SmpteTimeCode>
    </SmpteDuration>
</Duration>
</MediaLocation>
</Media>
</Source>
<Destination>
    <Media>
        <PrecompressedTS/>
        <MediaLocation>
            <Location>
                <AssetServer playlistAllowed="true" fileTransferAllowed="true">
                    <PathName>C:\MediaFiles\Programs</PathName>
                </AssetServer>
            </Location>
            <SOM>
                <SmpteTimeCode>00:00:00:00</SmpteTimeCode>
            </SOM>
            <Duration>
                <SmpteDuration>
                    <SmpteTimeCode>00:28:46:00</SmpteTimeCode>
                </SmpteDuration>
            </Duration>
            <ArchiveGroup>
                <ArchiveName>Archive B</ArchiveName>
            </ArchiveGroup>
        </MediaLocation>
    </Media>
</Destination>
</ContentTransfer>
</BxfData>
</BxfMessage>

```

## A.6 Transfer order

**Context of Use:** Content distribution continues to become an important method of receiving content representing an auxiliary repository of needed content for a broadcast facility. These use cases represent the processes of notification of new or updated content, retrieving content, format sheets and transfers from the content distribution system. Other user goals defined allow the user to manipulate a requested transfer by reprioritization or cancellation of the request.

**Origination System:** Traffic/Automation/Program Management

**Destination System:** Content Distribution

**Trigger:** A request has been made to retrieve, or transfer content.

**Additional Stakeholders and Interests:**

Content – includes video/audio content as well as metadata for the content to be transferred from one location to another.

**Preconditions:** A session has been established.

**Main Success Scenario:**

Submit Content Notification:

1. CPS sends a *notify-content* message to ES when content is added, updated or removed.
2. ES sends an *ack* message.
3. Use case ends.

Retrieve Content:

1. ES sends a *query-content* message.
2. CPS validates the message and sends back an *ack* message.
3. If the message is invalid, CPS sends a negative *ack* message and terminates the use case.
4. CPS retrieves content.
5. CPS sends a *list-content* message.
6. ES sends an *ack* message.
7. Use case ends.

Retrieve Format Sheet:

1. ES sends a *query-format-sheet* message.
2. CPS validates the message and sends back an *ack* message.
3. If the message is invalid, CPS sends a negative *ack* message and terminates the use case.
4. CPS retrieves the format sheet and sends a *list-format-sheet* message.

5. ES sends an *ack* message.
6. Use case ends.

#### Retrieve Transfers:

1. ES selects transfer id or destination name.
2. ES sends a *query-transfer* message.
3. If the message is invalid, CPS sends a negative *ack* message and terminates the use case.
4. CPS validates the message and sends an *ack* message.
5. CPS retrieves information about transfers.
6. CPS sends a *list-transfer* message
7. ES sends an *ack* message.
8. Use case ends.

#### Transfer Content:

1. ES selects content and destination.
2. ES sends a *transfer-content* message.
3. If the message is invalid, CPS sends a negative *ack* and terminates the use case.
4. CPS validates the message and sends an *ack* message.
5. CPS transfers the requested content to the requested destination.
6. CPS sends a *notify-transfer* when the content is transferred.
7. ES sends an *ack* message.
8. Use case ends.

#### Change Transfer Priority:

1. ES selects a 'queued' transfer and a priority
2. ES send a *set-transfer-priority* message.
3. If the message is invalid, CPS sends a negative *ack* message and terminates the use case.
4. CPS validates the message and sends an *ack* message.
5. CPS changes the priority of transfer.
6. Use case ends.

#### Cancel Transfer:

1. ES selects a transfer to cancel
2. ES send a *cancel-transfer* message.
3. If the message is invalid, CPS sends a negative *ack* and terminates the use case.

4. CPS validates the message and sends an *ack* message.
5. CPS cancels the transfer if the transfer is not already finished.
6. Use case ends

*Example: Message and metadata to initiate or schedule (file) transfer of content*

```
<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:F1234568-0022-92EE-9BA6-C293A1FA6693" messageType="Information" dateTime="2006-09-06T07:50:23.26" origin="Traffic System" originType="Traffic" destination="Automation" userName="Traffic System User"
xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
<BxfData action="add">
<ContentTransfer transferId="urn:uuid:FF56FE68-3D41-11DB-8AF6-B622A1EF5492" transferType="File transfer" priority="Normal">
  <Content location="http://edgeserver.com/incoming_files" source="Regional Distributor">
    <ProgramContent>
      <ContentMetaData>
        <ContentId action="add">
          <Isan root="0000-0001-6134" episodeOrPart="008B" check1="C" version="0000-0000" check2="1"/>
        </ContentId>
        <Name>Hello World</Name>
        <Description>A small town standard makes it to the big time.</Description>
      </ContentMetaData>
      <Series>
        <SeriesName>Hello World, The Series</SeriesName>
      </Series>
    </ProgramContent>
  </Content>
</ContentTransfer>
</BxfData>
</BxfMessage>
```

## A.7 Content Notify

**Context of Use:** A system that is capable of storing content must be able to communicate the inventory it contains. In most cases, this is an intelligent system that has “send” and “receive” capabilities, enabling effective transfer of this content.

**Origination System:** Content Delivery

**Destination System:** Automation

**Trigger:** Automation system is notified of arrival of new content.

**Additional Stakeholders and Interests:**

Automation User: Informs the traffic system of content that has been successfully delivered and is ready for use.

Traffic User: Keeps abreast of the changes of the status/location of content that is due to air.

**Preconditions:** Content needed for broadcast is unavailable

**Main Success Scenario:**

*Traffic department:*

1. Traffic user requests content items to be placed on a record order.



2. Traffic user submits record order to automation system.

*Automation system:*

3. Automation user acknowledges new order for recording of content.
4. Automation system submits status for record order to the traffic system.

*Traffic system:*

5. Traffic system accepts status and updates its database with the information from the automation system.
6. Use Case ends.

*Example: Message notifying target of new content*

```
<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:F1234568-0022-92EE-9BA6-C293A1FA6693" messageType="Information" dateTime="2006-09-06T07:50:23.26" origin="Content Delivery System" originType="Content Delivery" destination="Traffic System" userName="Content Delivery System User" xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
  <BxfData action="add">
    <ContentTransfer transferId="urn:uuid:FF56FE68-3D41-11DB-8AF6-B622A1EF5492" transferType="File transfer" priority="Normal" status="Completed" statusDescription="Content recently arrived--date and time reflected in the 'recordEventStart' and 'recordEventEnd' fields" recordEventStart="2006-09-06T07:50:23.26" recordEventEnd="2006-09-06T07:55:23.26">
      <Content location="http://edgeserver.com/incoming_files" source="Regional Distributor">
        <ProgramContent>
          <ContentMetaData>
            <ContentId action="add">
              <Isan root="2B1A-FF17-3E20" episodeOrPart="6541" check1="7" version="48CD-78B1"
check2="B"/>
            </ContentId>
            <Name>The One With the Thumb</Name>
            <Description>Ross discovers the fate of his childhood pet, Chi-Chi. Chandler starts smoking again; when the group complains, he diverts their attention to their own faults. Phoebe gets money she doesn't want; she complains and gets more; she gives it away and gets a can of soda in return...which contains a thumb. The beverage company gives her $7000. Monica's new boyfriend is a hit with her friends, but Monica's not too sure.</Description>
          </ContentMetaData>
          <Series>
            <SeriesName>Friends</SeriesName>
          </Series>
        </ProgramContent>
      </Content>
    </ContentTransfer>
  </BxfData>
</BxfMessage>
```

## A.8 Query request

**Context of Use:** Any particular system might have the need to find out information that another system contains. Therefore, using the common xml schema amongst the participating systems, a SQL-like query is able to be used via a subset of XPATH 2.0 (<http://www.w3.org/TR/xpath20/>) to implement the <WhereClause> and <ReturnStructure> nodes syntax.

**Origination System:** Any

**Destination System:** Any

**Trigger:** The originating system desires to query the target system for useful information.

**Additional Stakeholders and Interests:**

Any/all

**Preconditions:** Information is needed that the originating system does not have and/or needs to verify from a target system

**Main Success Scenario:**

*System A:*

1. User of originating system A requests information from System B.

*System B:*

2. Performs a local query using the where-clause of the originating system's query
3. Returns the desired information to the originating system using the return-structure scheme

*Examples:*

1. All active channels for a given date range

```
<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" messageType="Request" dateTime="2006-08-16T20:44:43.16" origin="Traffic System" originType="Traffic" destination="Automation" userName="Traffic System User"
xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
  <BxfQuery>
    <WhereClause>Schedule/@scheduleStart="2006-08-16T05:00:00.00"</WhereClause>
    <ReturnStructure>Schedule/Channel/*</ReturnStructure>
  </BxfQuery>
</BxfMessage>
```

**Note:** The “\*” indicates all sub-nodes at that level and below, if the “\*” is omitted only that node and its attributes would be returned.

*<!-- The above query would return all channels for which a schedule =2006-08-16T05:00:00:00.000 is defined. Returned record set would be something like:-->*

```
<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F2" messageType="Reply" dateTime="2006-08-16T20:44:50.16" origin="Automation" originType="Automation" destination="Traffic System" userName="Automation System User"
originMessageId="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" xmlns="http://smpte-ra.org/schemas/2021/2008/BXF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF
BxfSchema.xsd">
```

```

<BxfQueryResponse>
  <Schedule type="Primary" scheduleId="urn:uuid:00000000-0000-0000-0000-003833839122">
    <Channel>....</Channel>
  </Schedule>
  <Schedule type="Primary" scheduleId="urn:uuid:00000000-0000-0000-0000-003833839123">
    <Channel>....</Channel>
  </Schedule>
</BxfQueryResponse>
</BxfMessage>

```

<!-- The Channel section is all optional, but the returning system would populate any channel attribute or elemental data it knows-->

## 2. Schedule identification for a given date range.

```

<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" messageType="Request" dateTime="2006-08-16T20:44:43.16" origin="Traffic System" originType="Traffic" destination="Automation" userName="Traffic System User"
xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
  <BxfQuery>
    <WhereClause>Schedule/@scheduleStart>="2006-08-16T05:00:00.00"</WhereClause>
    <ReturnStructure>Schedule</ReturnStructure>
  </BxfQuery>
</BxfMessage>

```

*Must return:*

```

<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F2" messageType="Reply" dateTime="2006-08-16T20:44:50.16" origin="Automation" originType="Automation" destination="Traffic System" userName="Automation System User"
originMessageId="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" xmlns="http://smpte-ra.org/schemas/2021/2008/BXF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF
BxfSchema.xsd">
  <BxfQueryResponse>
    <Schedule type="Primary" scheduleId="urn:uuid:00000000-0000-0000-0000-003833839122">
    </Schedule>
    <Schedule type="Primary" scheduleId="urn:uuid:00000000-0000-0000-0000-003833839123">
    </Schedule>
  </BxfQueryResponse>
</BxfMessage>

```

## 3. Schedules for a specific **Channel** for a given date range.

```

<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" messageType="Request" dateTime="2006-08-16T20:44:43.16" origin="Traffic System" originType="Traffic" destination="Automation" userName="Traffic System User"
xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd"
xmlns:pmcp="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1"
pmcp:schemaLocation="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1/pmcp31.xsd">
  <BxfQuery>
    <WhereClause>Schedule/Channel/Name="WXYZ" and Schedule/@scheduleStart>="2006-08-16T05:00:00.00"</WhereClause>
    <ReturnStructure>Schedule/*</ReturnStructure>
  </BxfQuery>
</BxfMessage>

```

*This query would return schedules including all events for **Channel** Named "WXYZ" with a scheduleStart>="2006-08-16T05:00:00.00":*

```

<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F2" messageType="Reply" dateTime="2006-08-16T20:44:50.16" origin="Automation" originType="Automation" destination="Traffic System" userName="Automation System User"
originMessageId="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" xmlns="http://smpte-ra.org/schemas/2021/2008/BXF"

```

```

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF
BxfSchema.xsd" xmlns:pmcp="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1"
pmcp:schemaLocation="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1/pmcp31.xsd">
  <BxfQueryResponse>
    <Schedule type="Primary" scheduleId="urn:uuid:00000000-0000-0000-0000-003833839122">
      <Channel>
        <pmcp:Name>WXYZ</pmcp:Name>
      </Channel>
      <ScheduledEvent>...</ScheduledEvent>
    </Schedule>
  </BxfQueryResponse>
</BxfMessage>

```

#### 4. Only “As Run” schedules on **Channel WXYZ**

```

<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" messageType="Request" dateTime="2006-08-
16T20:44:43.16" origin="Traffic System" originType="Traffic" destination="Automation" userName="Traffic System User"
xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd"
xmlns:pmcp="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1"
pmcp:schemaLocation="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1/pmcp31.xsd">
  <BxfQuery>
    <WhereClause>Schedule/Channel/Name="WXYZ" and Schedule/@scheduleStart="2006-08-
16T05:00:00.00"</WhereClause>
    <ReturnStructure>Schedule/AsRun/*</ReturnStructure>
  </BxfQuery>
</BxfMessage>

```

#### 5. Content Transfer Query – return status of all content transfers on the device specified as the message destination.

```

<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" messageType="Request" dateTime="2006-08-
16T20:44:43.16" origin="Automation System" originType="Automation" destination="Content Transfer" userName="Content Transfer
System User" xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
  <BxfQuery>
    <WhereClause>*</WhereClause>
    <ReturnStructure>ContentTransfer</ReturnStructure>
  </BxfQuery>
</BxfMessage>

```

Returns:

```

<BxfMessage ...>
  <BxfQueryResponse>
    <ContentTransfer transferId=.. transferType=... status=../>
    <ContentTransfer transferId=.. transferType=... status=../>
    ...
  </BxfQueryResponse>
</BxfMessage>

```

## A.9 Invoke Schedule

**Context of Use:** The traffic system is responsible for maintaining the composite programming schedule. This composite schedule would include any program elements, commercials, promotions, and other interstitial material. The schedule is transferred to the automation system which is responsible for the control of systems and equipment involved in playing the schedule to air over the **Channel**.

The Invoke Schedule example shows the activation of a schedule, which had previously been transferred to the automation system.

**Origination System:** Traffic

**Destination System:** Automation

**Trigger:** A previously-transferred schedule is to be activated for broadcast.

**Additional Stakeholders and Interests:**

Traffic System – Responsible for generating and disseminating the composite schedule. Traffic is also responsible for notifying the automation system of changes, and for bringing a new schedule into use to control a given **Channel** of playback.

Automation User- Receiving an accurate schedule in a timely manner such that it can be used to ready the schedule items for playback.

Master Control Operator- Wants accurate schedules and accurate data so the right content plays at the right time. The schedule activation from traffic to be available for visual verification and manual updates either directly in Traffic or via Automation.

**Preconditions:** A session has been established.

**Main Success Scenario:**

Invoke Schedule:

1. A request is sent for a particular schedule is activated. The schedule is identified by the *BxFMessage.Schedules.ScheduleID* attribute.
2. Automation validates the existence and state of the schedule referenced in the request. If validation of the request is successful, Automation sends an **ACK** (*BxFMessage.MessageType = acknowledgement*), and commences with the requested operation.
3. The outcome of the operation is conveyed back to Traffic in a **Reply** message generated by Automation, indicating result status in *BxFMessage.Status*.

*Example: Message to automation to load the schedule into a usable playlist*

```
<?xml version="1.0" encoding="UTF-8"?>
<BxFMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" dateTime="2006-08-02T13:27:48.80"
messageType="Request" origin="Traffic System" originType="Traffic" userName="Traffic System User" destination="Automation"
xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
  <BxfData action="add">
    <Schedule type="Primary" scheduleId="urn:uuid:00000000-0000-0000-0000-0038338391E0" invokeSchedule="true"/>
  </BxfData>
</BxFMessage>
```

## A.10 Heartbeat

**Context of Use:** Any system that is interested in communicating with another can verify that the target system is available to communicate messages. A heartbeat message can be used for this verification, thereby ensuring that messages can proceed between the systems.

**Origination System:** Any

**Destination System:** Any

**Trigger:** A system is interested in knowing the communication status of another system, so a heartbeat message is sent.

**Additional Stakeholders and Interests:**

Any/all

**Preconditions:** There is a need to determine whether a system of interest is available to communicate using BXF.

**Main Success Scenario:**

*Traffic department:*

1. Traffic user wants to utilize various use-cases for daily operations that include the Content Delivery system.
2. The traffic application submits a heartbeat message to ensure Content Delivery is available for messaging.

*Content Delivery system:*

3. Content Delivery receives the heartbeat message and responds if it is available to communicate with the inquiring system.
4. Use Case ends.

*Example: Message to query the availability of a Content Delivery System:*

```
<?xml version='1.0' encoding='UTF-8' ?>
<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" dateTime="2006-08-16T20:44:43.16"
messageType="Heartbeat" origin="Traffic System" originType="Traffic" userName="Traffic System User"
destination="ContentDelivery" originId="urn:uuid:12345678-1234-1234-1234-123456789012" xmlns="http://smpte-
ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://smpte-
ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
</BxfMessage>
```

## A.11 As Run

**Context of Use:** Automation systems are supplied with events which are eligible for going to air. These events shall either be successfully played out or become a discrepancy. Both statuses are communicated to the traffic system and record appropriate reconciliation of the event. This use case covers the steps necessary for the communication about an event that has been aired, between automation system and the traffic system.

This communication has traditionally been in a 'batch' of events from the automation to the traffic system. Both a group of events or single event communication is supported.

**Origination System:** Automation

**Destination System:** Traffic

**Trigger:** An event is played out or marked as a discrepancy.

## Additional Stakeholders and Interests:

Automation User: Reports the actual status of any event that it executes, or was planning on executing, back to the traffic system.

Traffic User: Is interested in the state of the originally planned schedule—needs to know, if/when billable spots have been properly executed on-air, as well as other planned/unplanned events. Takes responsibility to do an accurate accounting of what was scheduled versus what was aired.

**Preconditions:** Automation events are available for playout.

## Main Success Scenario:

*Playout:*

Automation system:

1. Automation successfully executes the playout of an event.
2. Automation submits message to the traffic system with metadata for event.

Traffic system:

3. Traffic system accepts message and updates its reconciliation report (records status) with the information from the automation system.
4. Use Case ends.

*Discrepancy:*

Automation system:

1. Automation has discrepancy in automation event.
2. Automations submits message to the traffic system with metadata for event.

Traffic system:

3. Traffic system accepts message and updates its reconciliation report (records status) with the information from the automation system.
4. Use Case ends.

*Example: Message sent by automation back to traffic after a program airs (matches to schedule example):*

```
<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" dateTime="2006-09-05T13:38:26.28"
messageType="Information" origin="Automation System" originType="Automation" userName="Automation System User"
destination="Traffic System" xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF BxfSchema.xsd"
xmlns:pmcp="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1"
pmcp:schemaLocation="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1">
  <BxfData action="add">
    <Schedule type="Primary" scheduleId="urn:uuid:00000000-0000-0000-0000-0038338391E0" scheduleName="WXXX Ch 6-
1" scheduleStart="2006-06-21T17:30:00.00" scheduleEnd="2006-06-21T18:00:00.00">
      <Channel channelNumber="6-1" status="active" type="digital_television" ca="false" shortName="WXXX-DT"
outOfBand="true">
```

```

    <pmcp:Name lang="eng">WXXX-DT Ch 6-1</pmcp:Name>
  </Channel>
  <AsRun>
    <BasicAsRun>
      <AsRunEventId>
        <EventId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F1</EventId>
      </AsRunEventId>
      <Content>
        <ContentId>
          <HouseNumber>Network-1</HouseNumber>
        </ContentId>
        <Name>Evening News Segment-1</Name>
      </Content>
      <AsRunDetail>
        <Status>Aired Without Discrepancy</Status>
        <Type>ProgramHeader</Type>
        <StartTime>
          <SmpteDateTime broadcastDate="2006-06-21">
            <SmpteTimeCode>15:30:01:10</SmpteTimeCode>
          </SmpteDateTime>
        </StartTime>
        <Duration>
          <SmpteDuration>
            <SmpteTimeCode>00:12:02:10</SmpteTimeCode>
          </SmpteDuration>
        </Duration>
      </AsRunDetail>
    </BasicAsRun>
  </AsRun>
  <AsRun>
    <BasicAsRun>
      <AsRunEventId>
        <EventId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F2</EventId>
        <BillingReferenceCode>JFMC1201-0012</BillingReferenceCode>
      </AsRunEventId>
      <Content>
        <ContentId>
          <HouseNumber>JFMC1201</HouseNumber>
          <AlternateId idType="ISCI" authoritativeSource="AAAA">JFMC1201</AlternateId>
        </ContentId>
        <Name>Johnson Motors Super Sales Event</Name>
      </Content>
      <AsRunDetail>
        <Status>Aired Without Discrepancy</Status>
        <Type>BreakHeader</Type>
        <StartTime>
          <SmpteDateTime broadcastDate="2006-06-21">
            <SmpteTimeCode>15:42:03:20</SmpteTimeCode>
          </SmpteDateTime>
        </StartTime>
        <Duration>
          <SmpteDuration>
            <SmpteTimeCode>00:00:30:00</SmpteTimeCode>
          </SmpteDuration>
        </Duration>
      </AsRunDetail>
    </BasicAsRun>
  </AsRun>
  <AsRun>
    <BasicAsRun>
      <AsRunEventId>
        <EventId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F3</EventId>
      </AsRunEventId>
      <Content>

```



```

        <ContentId>
          <HouseNumber>Network-1</HouseNumber>
        </ContentId>
        <Name>Evening News Segment-2</Name>
      </Content>
    <AsRunDetail>
      <Status>Aired Without Discrepancy</Status>
      <Type>ProgramHeader</Type>
      <StartDateTime>
        <SmpteDateTime broadcastDate="2006-06-21">
          <SmpteTimeCode>15:42:33:20</SmpteTimeCode>
        </SmpteDateTime>
      </StartDateTime>
      <Duration>
        <SmpteDuration>
          <SmpteTimeCode>00:09:28:03</SmpteTimeCode>
        </SmpteDuration>
      </Duration>
    </AsRunDetail>
  </BasicAsRun>
</AsRun>
<AsRun>
  <BasicAsRun>
    <AsRunEventId>
      <EventId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F4</EventId>
      <BillingReferenceCode>FBIN0901-0001</BillingReferenceCode>
    </AsRunEventId>
    <Content>
      <ContentId>
        <HouseNumber>FBIN0901</HouseNumber>
        <AlternateId idType="ISCI" authoritativeSource="AAAA">FBIN0901</AlternateId>
      </ContentId>
      <Name>Discount Mortgage Promotion</Name>
    </Content>
    <AsRunDetail>
      <Status>Aired with Duration Discrepancy</Status>
      <Type>BreakHeader</Type>
      <StartDateTime>
        <SmpteDateTime broadcastDate="2006-06-21">
          <SmpteTimeCode>15:52:01:23</SmpteTimeCode>
        </SmpteDateTime>
      </StartDateTime>
      <Duration>
        <SmpteDuration>
          <SmpteTimeCode>00:00:29:25</SmpteTimeCode>
        </SmpteDuration>
      </Duration>
      <EventNotes>
        <EventNote>Upcut by switcher</EventNote>
      </EventNotes>
    </AsRunDetail>
  </BasicAsRun>
</AsRun>
<AsRun>
  <BasicAsRun>
    <AsRunEventId>
      <EventId>urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F5</EventId>
    </AsRunEventId>
    <Content>
      <ContentId>
        <HouseNumber>Network-1</HouseNumber>
      </ContentId>
      <Name>Evening News Segment-3</Name>
    </Content>
  </BasicAsRun>
</AsRun>

```

```

<AsRunDetail>
  <Status>Aired Without Discrepancy</Status>
  <Type>ProgramHeader</Type>
  <StartTime>
    <SmpteDateTime broadcastDate="2006-06-21">
      <SmpteTimeCode>15:52:31:18</SmpteTimeCode>
    </SmpteDateTime>
  </StartTime>
  <Duration>
    <SmpteDuration>
      <SmpteTimeCode>00:07:28:05</SmpteTimeCode>
    </SmpteDuration>
  </Duration>
</AsRunDetail>
</BasicAsRun>
</AsRun>
</Schedule>
</BxfData>
</BxfMessage>

```

## A.12 Playlist Update

**Context of Use:** During the airing of a broadcast channel/day it may be necessary to manage traffic events. This may be because of new information received for an event (i.e. a change in duration), or necessitated by adding, deleting or moving of a traffic event for operational reasons (which could include a **Makegood**, last minute program/break changes, copy change etc.). These could also be updates to content or the behavior of a traffic event (i.e. primary, secondary or linked events, etc.).

**Origination System:** Traffic

**Destination System:** Automation

**Trigger:** A change is made by the traffic user that impacts the channel/broadcast day.

### Additional Stakeholders and Interests:

Automation User- Wants accurate information to track content from ingest to playout to deletion, and accurate timing for schedules. Reduce redundant tasks, enter data about events once (in Traffic) and share that data with other systems.

Master Control Operator- Wants accurate schedules and accurate data so the right content plays at the right time. Changes and updates from traffic to be reflected with accurate timing to reduce schedule running over/under.

Traffic User - Wants ability to easily have changes made to a schedule in the Traffic System reflected in the Automation system without additional manual processes.

**Preconditions:** A traffic event is updated for the channel/broadcast day.

### Main Success Scenario:

Add/Move/Delete event:

*Traffic System:*

1. Traffic user changes a traffic event by moving, adding or deleting the traffic event.
2. Traffic system submits message to the automation system with metadata for event.

*Automation System:*

3. Traffic events are converted to automation events.
4. Automation system accepts message and updates the automation event with the information from the traffic system.
5. Use Case ends.

Update to event:

*Traffic system:*

1. Traffic user updates a traffic event (e.g. duration, secondary event(s), etc.).
2. Traffic user submits message to the automation system with metadata for event.

*Automation System:*

3. Traffic events are converted to automation events.
4. Automation system accepts message and updates the automation event with the information from the traffic system.
5. Use Case ends.

Update to content impacting a traffic event:

*Traffic system:*

1. Traffic user adds, deletes or modifies content in traffic system database.
2. Traffic system creates metadata for updated content in traffic database.
3. Traffic system submits message to the automation system with metadata for event.

*Automation System:*

4. Traffic events are converted to automation events.
5. Automation system accepts message and updates the automation event with the information from the traffic system.
6. Use Case ends.

Update to specified event behavior impacting a traffic event:

*Traffic system:*

1. Traffic user adds or modifies specified event behavior in traffic system database.
2. Traffic system creates metadata for updated event behavior in traffic database.
3. Traffic system submits message to the automation system with metadata for event.

### Automation System:

4. Traffic events are converted to automation events.
5. Automation system accepts message and updates the automation event with the information from the traffic system.
6. Use Case ends.

*Example: Message from Traffic to Automation to update a playlist schedule as to the location of content:*

```
<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:904e104a-3345-4261-bac3-da80bb988b6a" dateTime="2006-11-16T08:11:12.00"
messageType="Information" origin="Traffic System" originType="Traffic" userName="TrafficUser1" xmlns="http://smpte-
ra.org/schemas/2021/2008/BXF" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://smpte-
ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
  <BxfData>
    <Schedule type="Primary" scheduleId="urn:uuid:00000000-0000-0000-0000-0038338391E0"
scheduleName="KXXX111706" scheduleStart="2006-11-17T17:30:00.00" scheduleEnd="2006-11-30T17:30:30.00">
      <Channel channelNumber="2-1" status="active">
        </Channel>
        <!-- This is an example of a schedule update for AlternateId, Name, Description of content based on HouseNumber,
scheduleStart and scheduleEnd -->
        <ScheduledEvent>
          <Content action="update">
            <ContentId>
              <HouseNumber action="update">90120</HouseNumber>
              <AlternateId action="update" idType="ISCI">JFMC1205</AlternateId>
            </ContentId>
            <Name lang="eng">Johnson Motors</Name>
            <Description lang="eng">Super Sales Event - Extended</Description>
          </Content>
        </ScheduledEvent>
        <!-- This is an example of a schedule update for MediaLocation based on scheduleStart and scheduleEnd -->
        <ScheduledEvent>
          <!-- Content element provided for readability only -->
          <Content>
            <ContentId action="update">
              <HouseNumber>90120</HouseNumber>
              <AlternateId idType="ISCI">JFMC1205</AlternateId>
            </ContentId>
            <Media action="update">
              <BaseBand/>
              <MediaLocation>
                <Location action="update">
                  <AssetServer fileTransferAllowed="true" playoutAllowed="true">
                    <PathName>\\server2\content\commercials</PathName>
                  </AssetServer>
                </Location>
              </MediaLocation>
            </Media>
          </Content>
        </ScheduledEvent>
      </Schedule>
    </BxfData>
  </BxfMessage>
```

```

    </Content>
  </ScheduledEvent>
</Schedule>
</BxfData>
</BxfMessage>

```

## A.13 Acquisition Failure

**Context of Use:** Content has been ordered to transfer between systems (transfertype=Duplication, Recording or File Transfer) and the action has failed for some reason. Because the traffic system has ordered the transfer, it is holding a place holder record in anticipation. The system tasked to execute the transfer is required to update the Traffic system in a specific way in the event of a failure

**Origination System:** Automation

**Destination System:** Traffic

**Trigger:** Transfer order received and acknowledged by automation.

Additional Stakeholders and Interests:

Automation User/Routine- Has been tasked to execute a content transfer. It is responsible for reporting the successful or unsuccessful conclusion of that task.

Traffic User – Has initiated a transfer order to automation and has generated a place holder record in its database in anticipation of a metadata update. On the occasion of a failure, it is required to manage the record, either to delete it or re-order the transfer.

**Preconditions:** There has been a transfer ordered (typically from Traffic to Automation) and the transfer was attempted.

### Main Success Scenario:

*Automation System:*

1. A transfer order was received and action against it has commenced.
2. Something happens to cause the transfer to fail.
3. Automation system messages Traffic system to inform of failure

*Traffic System*

4. Traffic acknowledges the failure.
5. Updates its records to either remove the place holder or reissue the transfer order.
6. Use Case ends.

*Example: Message from Traffic to Automation notifying the failure to acquire content:*

```

<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391F5" xmlns="http://smpte-ra.org/schemas/2021/2008/BXF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF
BxfSchema.xsd" userName="AutomationUser" dateTime="2006-11-23T14:23:55" originType="Automation"
messageType="Information" origin="Automation System">

```

```

<BxfData>
  <ContentTransfer transferType="File transfer" transferId="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1">
    <Content action="read" contentExists="false" error="system_unavailable">
      <NonProgramContent>
        <Details>
          <SpotType>Promo</SpotType>
        </Details>
        <ContentMetaData>
          <ContentId>
            <HouseNumber>ITVS_HYP</HouseNumber>
          </ContentId>
          <Name>ITVS HYPERBOLE</Name>
        </ContentMetaData>
      </NonProgramContent>
    </Content>
  </ContentTransfer>
</BxfData>
</BxfMessage>

```

## Annex B – Informative Notes

This section describes issues concerning the implementation of the schema.

The Programming Metadata Communication Protocol specification A/76A is significant as a predecessor document. The BXF standard adopts a similar philosophy and approach to communication of data, and for practical purposes, extends the scope of PMCP, which was simply schedules and program attributes, to encompass the general case of data exchange between systems participating in television broadcast operations. Additional references from the field of television broadcast are listed.

### B. 1 Design Considerations

All text entered as strings and all XML messages themselves conform to UTF-8 as the standard for encoding all characters.

All date and time values should be in UTC, with no timezone offset.

### B. 2 Schema

The BXF schema is included as Annex C of this document.

Note:

The BXF schema is included as Annex C of this document in a format that was exported from Altova's XMLspy, Professional Edition version 2008. The schema and all of its elements, annotations, restrictions, and enumerations shall be considered the normative representation of the standard and must be used to validate any messages that are generated by systems that use this standard as a means of communicating or transferring data. Where there are inconsistencies between this document and the schema, the schema shall take precedence. Certain attributes and elements of the schema refer to other schemas. These are not included in Annex C and must be referenced from their appropriate sources.

**Table 2: BXF Message Structure**

Name	Type	Description
Message ID	GUID	Globally unique identifier
Message Date	Xs:dateTime	Identifies when the message was sent by the originating system
Message Type	BXF message type	See documentation for detailed listing of types
Originating System	String	A string name uniquely identifying the system
Destination System	String	A string name uniquely identifying the system
Authorized User	String	User authorizing the message, including cron job or process – include

		automated user name – i.e. logupdate@traffic1
Process or Application Name	String	A string name uniquely identifying the process or application.

The diagram that follows shows the structure and primary fields of the BXF message. The table above describes the primary message fields used to convey origin, destination and security/ authorization-related values.



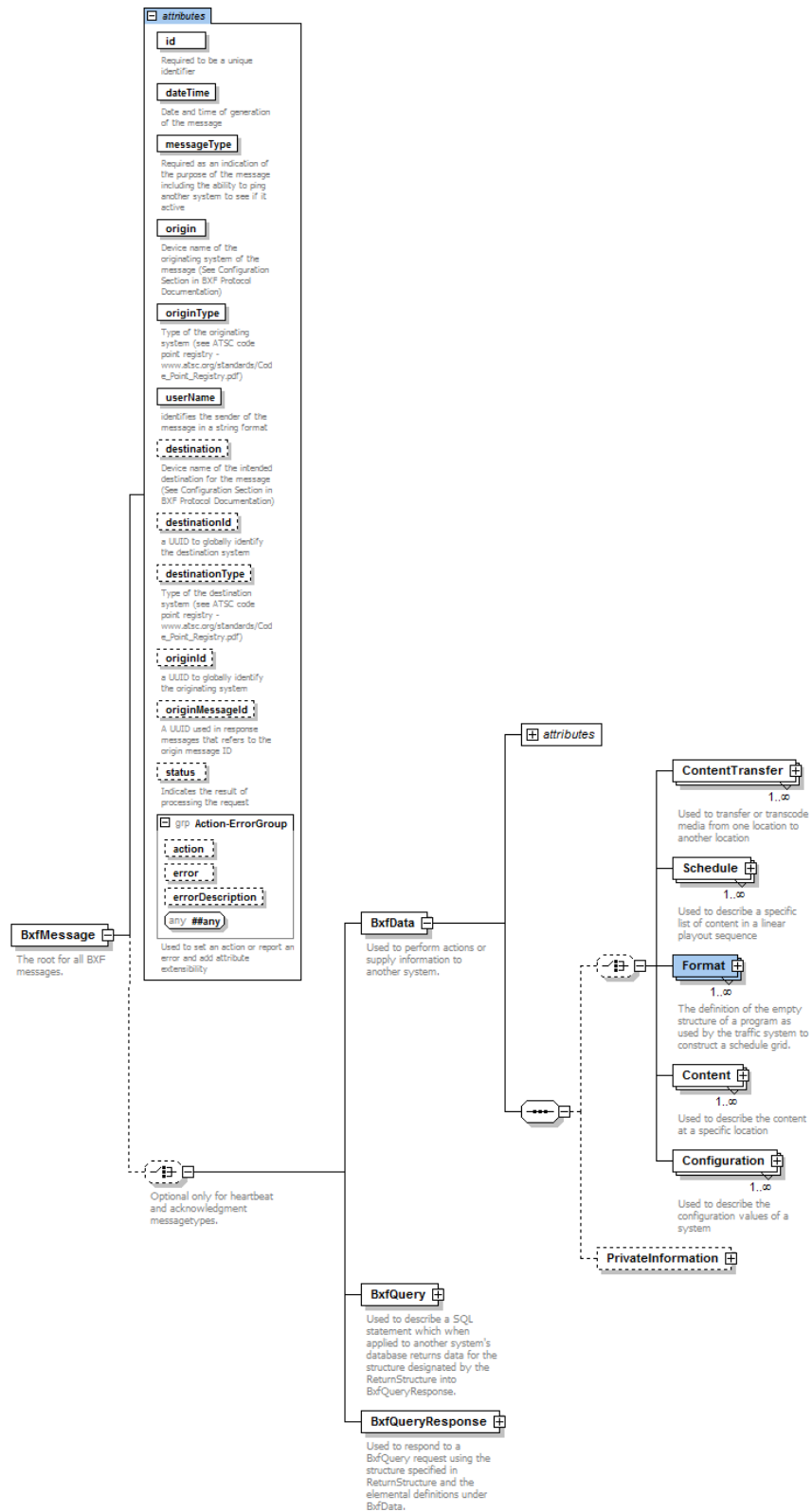


Figure 6: Message Attributes from Schema

### B. 3 Overview of Transactions

The BXF schema supports request/response transactions and asynchronous notifications. The transaction type is communicated in the message itself, by means of the message type field attribute of BxfMessage - the root structure in the XML message.

The following view shows the top-level elements of BXF.

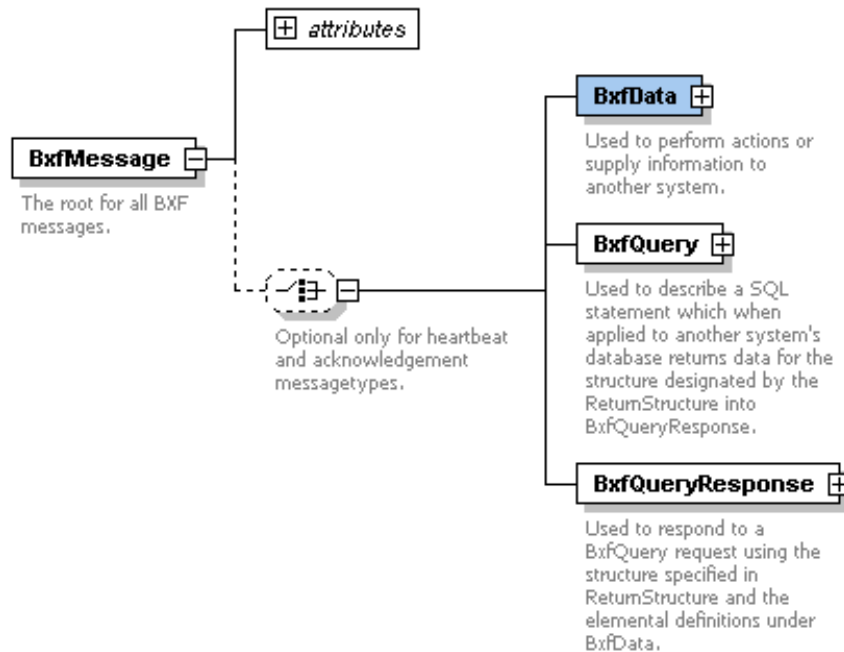


Figure 7: Top Level BXF Elements

BXF messages can be considered to be in one of the four categories listed below, between party **A** and party **B**. In these examples, **A** originates the transactions, but in an actual system, either party can initiate the transaction. BKF messages are point to point (not broadcast), however, BKF is not limited to two participants: messages can be sent to multiple parties using individual point to point messaging (e.g. {**A** to **B**} {**A** to **C**} {**B** to **D**}).

**A** requesting **B** to take some action. **A** provides the necessary data; **B** responds with a status and returned data as appropriate to the request. **A** requesting **B** for a set of entities – similar to query (II), but generally more strictly defined.

I. **A** queries **B** for information. **A** provides parameters for the query; **B** provides a response

II. **A** notifies **B** of an addition/ change/ removal of entity, or entity status/ value change.

III. **A** makes a utility request to **B**, such as status of a previous request. A Heartbeat message sent **A** -> **B**, and **B** -> **A** is another example of a utility request.

The following table shows various example transactions, grouped according to the four transaction categories above. The table also outlines the use of the messageType and other fields in the BKF message. For reference,

the BxfMessage attribute **messageType** values are: Request, Reply, Acknowledgement, Information, Heartbeat, and Message Status Request.

The following table illustrates the relationship between category of message, purpose of message (via use case examples), applicable messageType values, and the expected reply (message lifecycle). The details of the message lifecycle is explored in more detail later in this section.

**Table 3: Example Transactions by Category**

Category	Use Case	messageType	Notes
I	<p>Schedule Download <i>Sending of a day schedule to Automation from Traffic.</i></p> <p>Invoke Schedule <i>Request to Automation to make a schedule active</i></p> <p>Dub Order <i>Request for material to be dubbed from specified source to specified destination.</i></p>	<p>Request (sender)</p> <p>Acknowledgement (receiver)</p> <p>Reply (receiver)</p> <p>Acknowledgement*</p>	
II	<p>Request Inventory <i>Request list of current clips available on video servers, with metadata for each.</i></p> <p>Request Schedule <i>Request the schedule data for an entire day, or for specific time period.</i></p>	<p>Request (sender)</p> <p>Acknowledgement (receiver)</p> <p>Reply (receiver)</p> <p>Acknowledgement* (sender)</p>	<p>BxfQuery node is populated in the request.</p> <p>BxfData.action = queryresult</p>
III	<p>Content Notify <i>Notification of newly-arrived content (to a video server, for example)</i></p> <p>Content Transfer <i>Notification of newly-completed transfer of material.</i></p>	<p>Information (sender)</p> <p>Acknowledgement (receiver)</p>	
IV	Heartbeat	<p>Heartbeat (sender)</p> <p>Acknowledgement (receiver)</p>	
IV	Message Status Request	<p>Request (sender)</p> <p>Acknowledgment (receiver)</p> <p>Reply (receiver)</p> <p>Acknowledgement*</p>	BxfMessage.error indicates status of request.

\* An acknowledgement of the reply is optional

## **B. 4 Message Lifecycles**

Each BXF transaction has an “initiating” message that starts it. The following message types are transaction initiators:

- Request
- Information
- Heartbeat
- Message Status Request

The Reply and Acknowledgement message types participate in the transaction and provide useful information regarding its current state. The following sections provide a conceptual overview of a message’s lifecycle, based on its initiating message type.

### **B.4.1 BXF Request Message Lifecycle**

A request message represents a request to do something that warrants a reply. This may involve returning desired information or completing a task. If an error is detected by the destination, then an acknowledgement or reply shall be sent to the originator depending upon where the error was detected -- This is the last message that is sent by the destination. In other words, no reply is generated by the destination if the acknowledgement contains an “invalid” or “error” status.

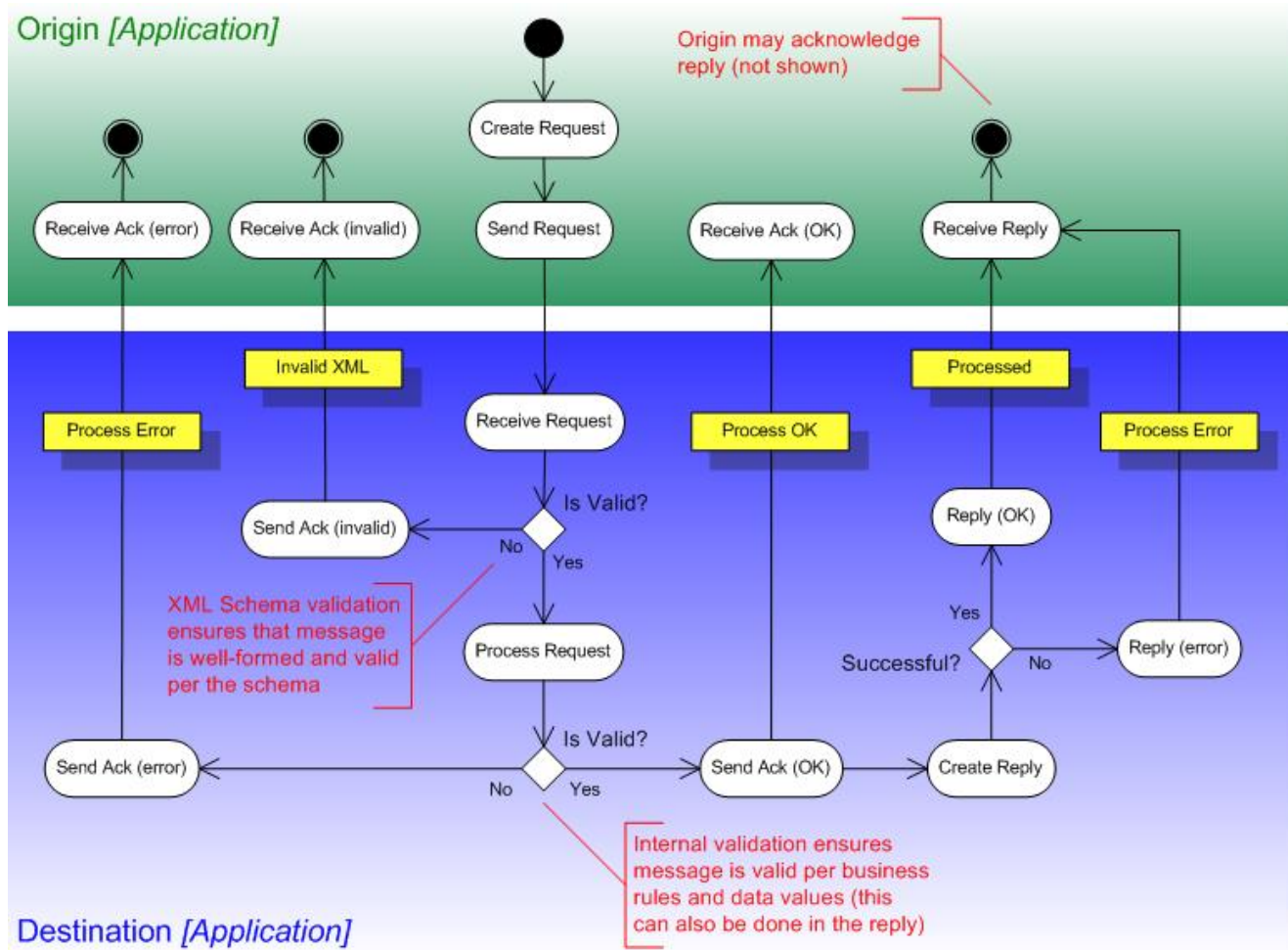


Figure 8: "Request" Message Lifecycle

### B.4.2 Information Message

An Information message represents a notification or request to do something that does not warrant a reply. This may involve modifying information (e.g., content) or completing a task. If an error is detected by the destination, then an acknowledgement shall be sent to the originator -- This is the last message that is sent by the destination. In other words, the destination does not generate additional messages (or attempt to process the message) if the initial acknowledgement is rejected with a status of "invalid".

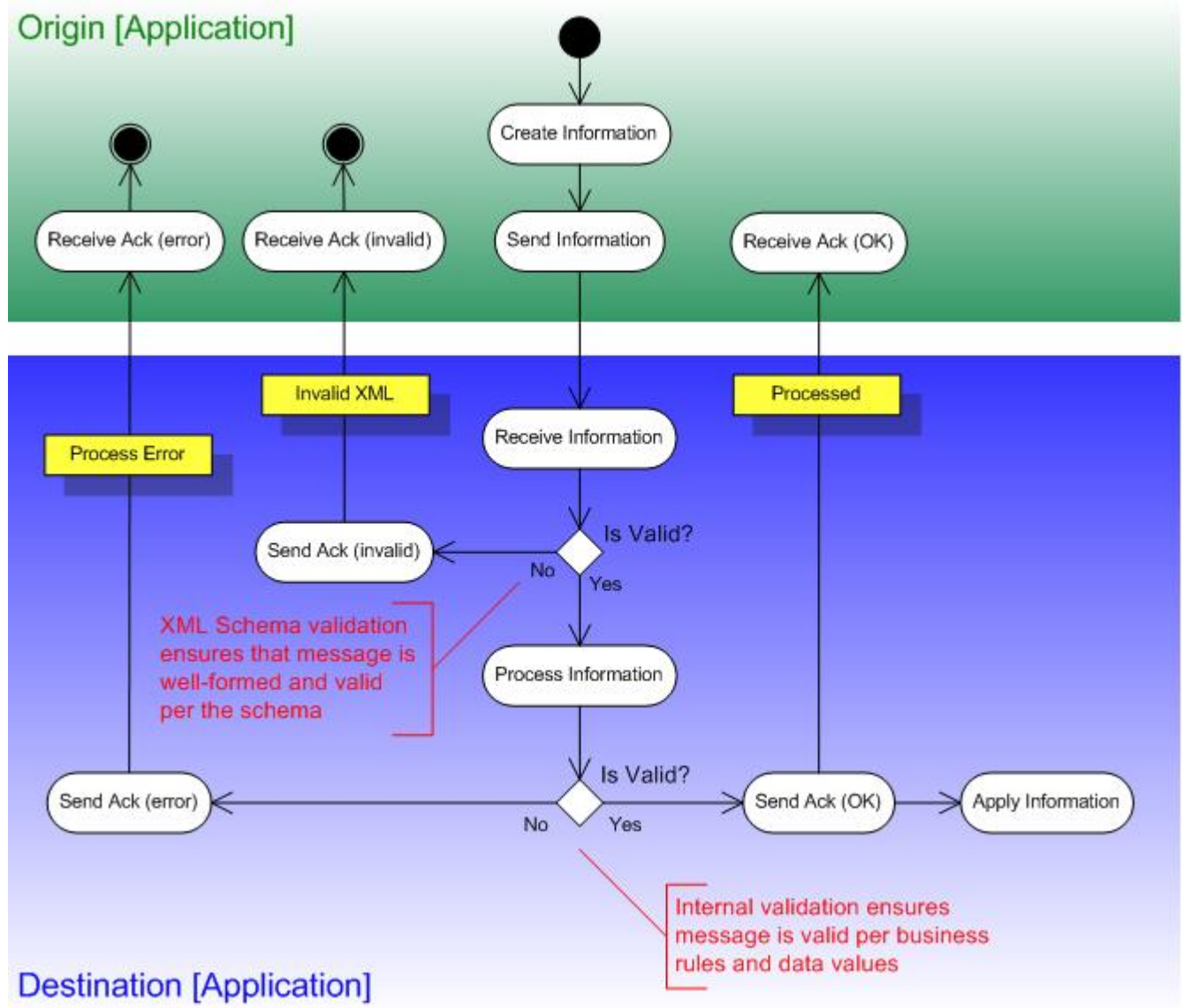
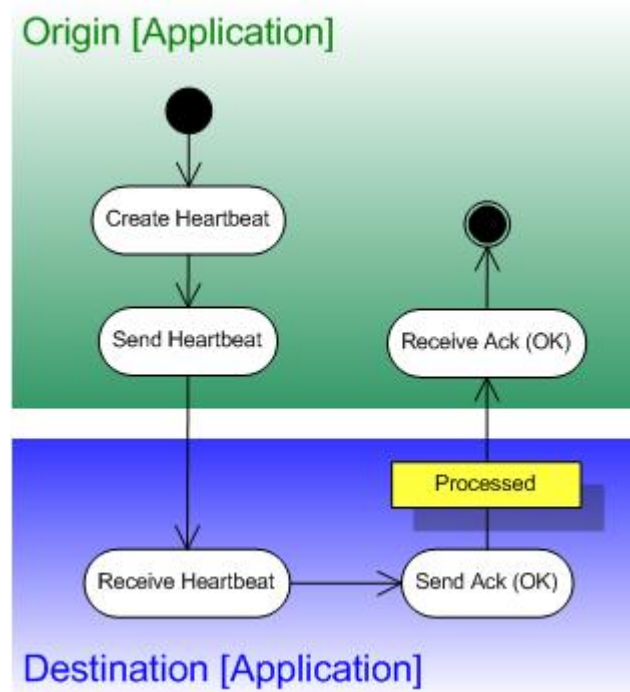


Figure 9: "Information" Message Lifecycle

### B.4.3 Heartbeat Message

A Heartbeat message represents a connectivity check. Details regarding heartbeat processing are discussed later in this document.



**Figure 10: "Heartbeat" Message Lifecycle**

#### B.4.4 Message Status Request

A Message Status Request message represents a request for the status of a message that was previously sent. Details regarding message status processing are discussed later in this document.

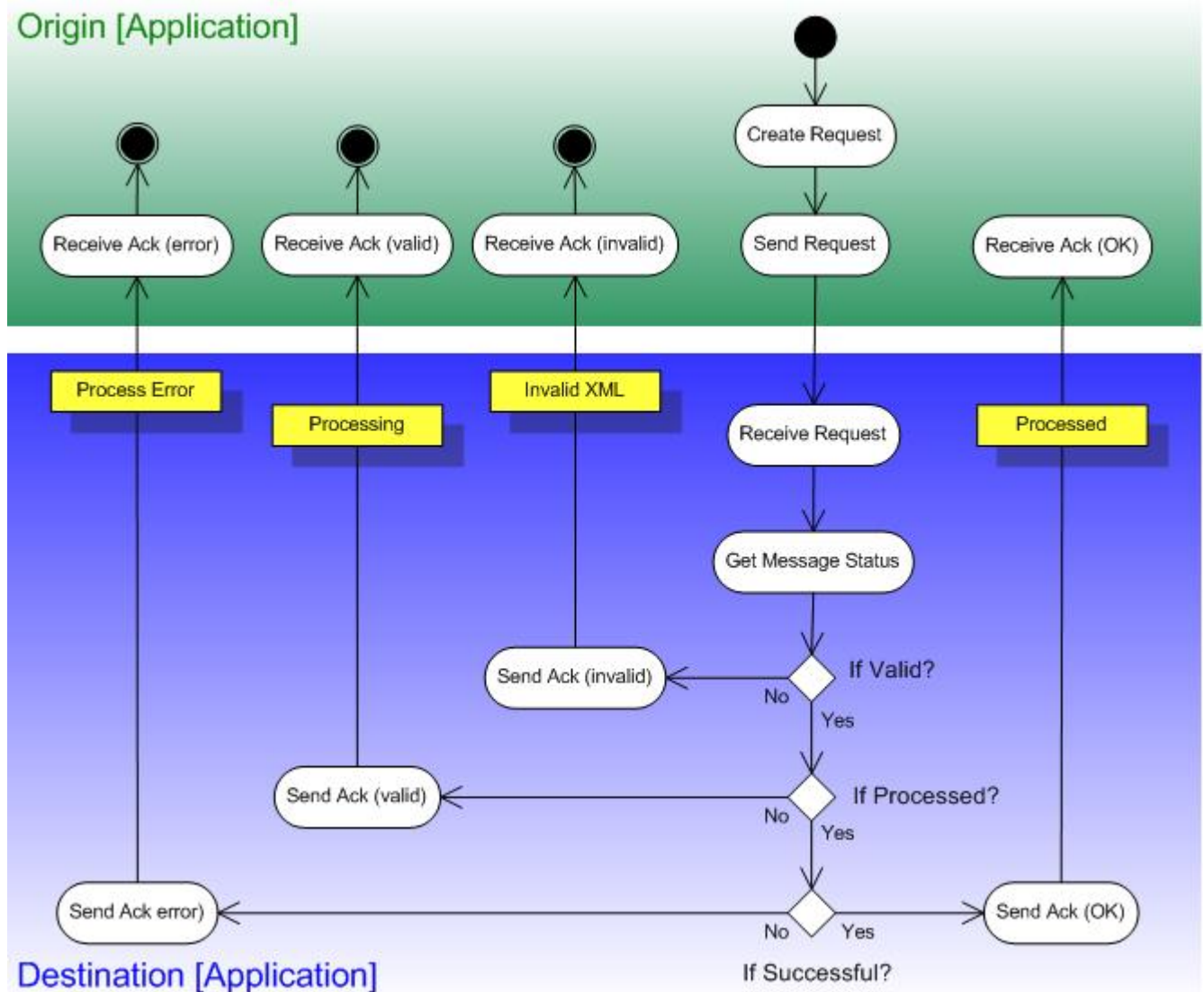


Figure 11: "Message Status" Message Lifecycle

#### B.5. Message Processing

The following subsections describe the role of certain common messages exchanged in BXF transactions

##### B.5.1 Acknowledgement Messages

As indicated in the message lifecycle diagrams, the receiving device shall generate at least one acknowledgement for each message that is received. Multiple acknowledgements may be generated when a message is received, but not processed until a later date. For example, if the receiving device intends the queue the message for future processing, then it should send an acknowledgement indicating that the message is valid per the schemas (i.e., status "valid"). At a later date, it should send another acknowledgement indicating the message is valid for processing (i.e., status "OK").



The sending device has the option of requesting the status of the receiving device, via a heartbeat message, or the status of a particular message, via a message status request. The receiving device shall generate an acknowledgment to satisfy either of these requests. The acknowledgement must contain the status information that the sending device desires.

## **B.5.2 Heartbeat Messages**

In connection-based implementations, client devices should monitor the server devices that they are connected to by using heartbeat messages. Client devices should support heartbeat message creation, as well as consumption of heartbeat acknowledgement messages. Server devices should support heartbeat message consumption, as well as create heartbeat acknowledgements. Additionally, each server device should monitor its clients by tracking their heartbeat message requests. Refer to the use case section for heartbeat message examples.

### **B.5.2.1 Heartbeat Message Timing and Timeout**

For client devices, the interval between heartbeat request messages shall be configurable per connection. The acceptable range for the heartbeat interval is as follows:

1 second <= acceptable range <= 10 minutes

Heartbeats are not required if other messages are being sent between devices. Heartbeat message are intended to detect connectivity issues during idle or slow periods, when no messages are being sent. The timeout period for client devices should be configurable per connection. The client shall ensure that the heartbeat request interval is always greater than this timeout.

The server heartbeat timeout is defined as the maximum duration that the server waits between heartbeat request messages before deciding that a client device is no longer connected. It should be configurable per connection. Acceptable values are at the discretion of the implementers. It is recommended that the server should not simply take a single lost heartbeat request to indicate a failed device or connection, but instead wait for subsequent messages to verify if they are also lost. The number of heartbeat periods to wait before considering the connection lost should be configurable per connection. The server time out period and number of periods to wait should be adjusted during system set up based on the heartbeat message period set for the client in order to prevent false communication failure alarms and detect communication failures in a timely fashion.

## **B.6. Primary Message Attributes**

Certain key attributes convey the meaning of the message and provide a means to communicate results. These attributes are:

`BxfMessage.messageType`

`BxfMessage.status`

Action-Error Group (consists of action, error, errorDescription)

The *messageType* and *status* attributes are only at the top-level node (`BxfMessage`). The Action-Error Group is the set of attributes as shown above. This set is available at the top-level `BxfMessage` node, and at other levels of the BXF Message. The role and function of each attribute is described below.

### **B.6.1 messageType Attribute**

The “messageType” attribute provides crucial contextual information regarding the expected message contents. The existence of the action, status, error, errorDescription and originMessageId attributes is largely based off of the message type. Message types fall into two general categories: Initiating types and responding types.

### B.6.1.1 Initiating

Initiating message types include “request”, “information”, “heartbeat” and “message status request”. The creator, or initiator, of a message shall specify one of these values for the message type. Initiating message types may include action attributes, but they should not include status, error, errorDescription and originMessageId attributes, which are associated with response message types.

### B.6.1.2 Responding

Response message types include “reply” and “acknowledgement”. The consumer of a message shall specify one of these values in the message it generates in response to a received message. Response message types must include values for the status and originMessageId attributes. If the message is rejected, the response should also contain error and errorDescription attributes.

### B.6.1.3 Relationship to Message Body

The following table summarizes the relationship between the different BXF messages body types (i.e., sub-elements) and the message types that indicate how the body should be processed:

**Table 4: Message Body and Type Relationships**

Message Body Type	Message Type
BxfData	Information
BxfQuery	Request, MessageStatusRequest
BxfQueryResponse	Reply
(none)	Acknowledgement, Heartbeat

Successful acknowledgement and heartbeat messages should not contain a message body type, since these messages consist of a BxfMessage element with no sub-elements. Error handling creates an exception to the above rules, however, since the original message body must be included in the response with errors indicating why the original message was rejected. For example:

An acknowledgment error message must include the original BxfData or BxfQuery element with the appropriate error attributes set, indicating why the message is being rejected.

A reply error message must include the original BxfQuery element with the appropriate error attributes set, indicating why the message is being rejected.

## B.6.2 status Attribute

The status attribute is utilized on reply and acknowledgement messages to indicate the status of a received message: request, information, heartbeat or message status request message. The valid status values are described below.

### B.6.2.1 valid

Acknowledgement messages with a status “valid” shall be generated when a message has been received and is valid per the BXF schema, but it has not been processed yet.

### B.6.2.2 invalid

Acknowledgement messages with a status “invalid” shall be generated when a message has been received but does not comply with the schema described in this document and cannot be processed.

### B.6.2.3 OK

Acknowledgement and reply messages with a status of “OK” shall be generated when a message was successfully processed by the receiving device.

### B.6.2.4 error

Acknowledgement and reply messages with a status of “error” shall be generated when a message was rejected by the receiving device during processing. The message should include detailed information about the error, as described in the error handling section.

## B.6.3 *action* Attribute

The action attribute is inherited from PMCP3.0 and describes what ‘action’ is requested of the receiver of the message. The action attribute is made available at many nodes in the hierarchy in order to support precise meaning in messages that may be large and complex. The ability to create precise messages is a language feature designed to enable participating systems to communicate effectively with minimum ambiguity in the messages.

The *action* values are **add**, **update**, **remove**, **query result**, and **information**. Section 4: *Actions in Messages* provides more detail and examples.

## B.6.4 *error* Attribute

The error attribute implementation within the BXF protocol is an extension of PMCP3.0 and performs the same functionality with several new options as detailed below in table 5. It allows one or more errors to be identified within a single message. Each error attribute provides both the location of the error and the type(s) of errors that occurred. Note that the offending element or attribute name is added to certain error types to clearly identify fault.

Table 5: Error Types

Error Types in BXF Schema			
<u>Type</u>	<u>Description</u>	<u>Examples</u>	<u>Origin</u>
*_change_denied	Use when an element or attribute value cannot be changed	HouseNumber_change_denied	PMCP
*_missing	Use when an element or attribute value is missing	ContentId_missing	PMCP
*_out_of_range	Use when an element or attribute value is out of range	SmpteTimeCode_out_of_range	PMCP
*_does_not_exist	Use when an element or attribute value does not exist	Destination_does_not_exist	PMCP

Error Types in BXF Schema			
<u>Type</u>	<u>Description</u>	<u>Examples</u>	<u>Origin</u>
<i>duplicate_message</i>	Use when a duplicate message is received		BXF*
<i>processing_exception</i>	Use when the destination system throws an unexpected exception during message processing; or when no other applicable error type exists -- this is the overarching error type		BXF*
<i>Not_supported</i>	Use when a message's contents are not supported by the destination system	An AsRun message is sent to a digital asset management system	BXF*
<i>system_unavailable</i>	Use when the destination system is reachable, but internally not available (the message is considered to be valid)		BXF*
*Note that on some inherited elements from PMCP the error attribute may not support the BXF options. All of the items can be extended using the format "XmlTime_missing:system_ref_aaaaa". The use of the colon and the following text is allowed on any of the items.			

Every complex type within the BXF protocol has an error attribute. Refer to the Error Handling section for additional information on errors.

### B.6.5 errorDescription Attribute

The errorDescription attribute implementation within the BXF protocol allows an error message to be passed that provides a detailed description of the error, or errors, that were identified by the receiving device. This information is provided for information purposes and can be used to expedite resolution to this error. Note that the errorDescription value is intended for the support staff, not the end user -- This value is not localizable so each error description should be specified in English.

Error descriptions should be provided, where appropriate, to clarify error types. However, it is acceptable to have error types without error descriptions (and vice-versa).

Every complex type within the BXF protocol has an errorDescription attribute. Refer to the Error Handling section for additional information on errors.

## B.7. Actions in Messages

The action attribute implementation within the BXF protocol is very flexible, allowing actions to be defined at multiple levels within a message. It is the responsibility of the message creator to ensure that the appropriate action value is specified at the appropriate levels within a message. The valid values for action are "add", "update", "information" and "remove".

Every "actionable" element shall have an action attribute. If an element does not have an action, then it inherits the action of its parent.

The following rules apply for processing actions:

A parent element action provides the default action for the child elements.

The “information” action indicates that the value is being provided for contextual purposes. For example, a required element in the schema that represents a key value. The value has not changed, but it must be included to process the message.

The default action on request, information, heartbeat or message status request messages is “information”. If an element does not contain an action, nor do any of its parents, then the implied action is “information”.

A query request (i.e., BxfQuery) shall not contain any action attributes with a value other than “information”.

A reply message shall not contain any action attributes.

An acknowledgement message shall not contain any action attributes.

Messages shall be rejected whenever conflicting actions are encountered (e.g., parent element action is “add”, child element action is “delete”)

An information or request data message (i.e., BxfData) that does not contain an action at any level, or only contains “information” actions, is ambiguous and shall be rejected.

If an element has an action attribute with the value “add”, the whole element, including its children, should be added by the receiving device. If a child of such an element has an action attribute, its value shall also be “add”. If the consuming application already had an element with the same identifier, then it and its children should be replaced.

If there is an action attribute with the value “update”, then the values should be updated within the receiving device. Each child element may have its own independent action attribute. For example, a child element may have an action of “add”, “remove” or “update” whenever the parent element action is “update”.

If an element has an action attribute with the value “remove”, then the referenced element should be removed, marked as removed, or disabled within the receiving device. Only the attributes required for unique identification should be interpreted by the receiver. All children elements and all other attributes should be ignored.

## B.7.1 Action Examples (Valid)

The following sections contain examples of the use of the action attribute. This should be considered a representation of the common scenarios, but not an all-inclusive list.

### B.7.1.1 Add All Elements

In the following example, all of the elements should be added:

```
<SomeElement1 action="add">
  <SomeElement2>newValue</SomeElement2>
  <SomeElement3>
    <SomeElement4>Newvalue</SomeElement4>
  </SomeElement3>
  <SomeElement5>
    <SomeElement6>Newvalue</SomeElement6>
  </SomeElement5>
</SomeElement1>
```

### B.7.1.2 Update All Elements

In the following example, all of the elements should be updated:

```
<SomeElement1 action="update">
  <SomeElement2> updatedValue</SomeElement2>
  <SomeElement3>
```

```

        <SomeElement4>updateValue</SomeElement4>
    </SomeElement3>
    <SomeElement5>
        <SomeElement6>updatedValue</SomeElement6>
    </SomeElement5>
</SomeElement1>

```

#### B.7.1.3 Remove All Elements

In the following example, all of the elements should be removed:

```

<SomeElement1 action="remove"/>

```

#### B.7.1.4 Add Sub-Element to an Existing Element

In the following example, SomeElement7 is added to SomeElement3 (which is updated):

```

<SomeElement1>
    <SomeElement3 action="update">
        <SomeElement7 action="add">newValue</SomeElement7>
    </SomeElement3>
</SomeElement1>

```

#### B.7.1.5 Add and Update Sub-Elements Concurrently

In the following example, SomeElement2 contains an update (i.e., action is derived from parent) and SomeElement3, SomeElement5 and SomeElement6 are being added:

```

<SomeElement1 action="update">
    <SomeElement2>updatedValue</SomeElement2>
    <SomeElement3 action="add">
        <SomeElement4>newValue</SomeElement4>
    </SomeElement3>
    <SomeElement5 action="add">
        <SomeElement6>newValue</SomeElement6>
    </SomeElement5>
</SomeElement1>

```

#### B.7.1.6 Add and Remove Sub-Elements Concurrently

In the following example, SomeElement3 is being added and SomeElement5 is being removed:

```

<SomeElement1 action="update">
    <SomeElement3 action="add">
        <SomeElement4>newValue</SomeElement4>
    </SomeElement3>
    <SomeElement5 action="remove"/>
</SomeElement1>

```

#### B.7.1.7 Update and Remove Sub-Elements Concurrently

In the following example, SomeElement3 is being updated and SomeElement5 is being removed:

```

<SomeElement1 action="update">
  <SomeElement3>
    <SomeElement4>updatedValue</SomeElement4>
  </SomeElement3>
  <SomeElement5 action="remove"/>
</SomeElement1>

```

#### B.7.1.8 Updating Nested Child Element

In the following example, SomeElement4 is being updated. No action is required on SomeElement1, since it is not changing:

```

<SomeElement1>
  <SomeElement3 action="update">
    <SomeElement4>updatedValue</SomeElement4>
  </SomeElement3>
</SomeElement1>

```

#### B.7.1.9 Action Examples (Not Valid)

The following examples of *invalid* action attribute usage are provided as an aid to understanding the functioning of the action attribute in a BXF message.

#### B.7.1.10 Delete Parent Element and Add Child

In the following example, SomeElement1 is deleted and child SomeElement3 is added. This message should be rejected by the consumer.

```

<SomeElement1>
  <SomeElement3 action="delete">
    <SomeElement7 action="add">newValue</SomeElement7>
  </SomeElement3>
</SomeElement1>

```

#### B.7.1.11 Add Parent Element and Remove Child

In the following example, SomeElement1 is added and child SomeElement3 is removed. This message should be rejected by the consumer.

```

<SomeElement1>
  <SomeElement3 action="add">
    <SomeElement7 action="remove">removeValue</SomeElement7>
  </SomeElement3>
</SomeElement1>

```

#### B.7.1.12 Add Parent Element and Update Child

In the following example, SomeElement1 is added and child SomeElement3 is updated. This message should be rejected by the consumer.

```

<SomeElement1>
  <SomeElement3 action="add">
    <SomeElement7 action="update">updateValue</SomeElement7>
  </SomeElement3>
</SomeElement1>

```

```

    </SomeElement3>
  </SomeElement1>

```

## B.8. Error Handling

The previous sections described a variety of BXF attributes, including those that are involved in identifying errors. This section summarizes how errors should be represented using these attributes and provides error handling examples.

### B.8.1 Error Handling Responsibilities

Error handling applies to acknowledgement and reply messages that are generated by a receiving device, after receiving message and determining that it is not valid. The acknowledgement or reply must contain the following information to clearly indicate that the message is not considered valid:

- Set status attribute on BxfMessage to “error” or “invalid”
- Set one or more error types and/or error descriptions within the message body

### B.8.2 Error Handling Examples

The following sections contain representative sample of common error scenarios, but not an all inclusive list.

#### B.8.2.1 Acknowledgement Error Example

The following acknowledgement message contains two errors were identified in the received message: The userName attribute is missing from the BxfMessage element and no ContentId element was specified under ContentInformation. An error description was provided on the second error to aid in understanding.

```

<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:34567890-2345-2345-1234-345678901234" userName="Joe" messageType="Acknowledgement"
dateTime="2006-08-16T20:44:43.16" origin="Automation System" originType="Automation" destination="Traffic" status="error"
error="userName_missing" xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" originMessageId="urn:uuid:12345678-1234-1234-1234-123456789012" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://smpte-
ra.org/schemas/2021/2008/BXF BxfSchema.xsd">
  <BxfData action="add">
    <ContentTransfer transferId="urn:uuid:ABCCDDDD-1111-22E3-9AFF-0038338391E1" transferType="Purge" priority="Normal">
      <Content user="ProTrack User">
        <ProgramContent>
          <ContentMetaData error="ContentId_missing" errorDescription="The element 'ContentMetaData' in namespace
'http://smpte-ra.org/schemas/2021/2008/BXF' has invalid child element 'Name' in namespace 'http://smpte-
ra.org/schemas/2021/2008/BXF'. List of possible elements expected: 'ContentId' in namespace 'http://smpte-
ra.org/schemas/2021/2008/BXF'">
            <ContentId>
              <Isan root="0000-0000-0000"></Isan>
            </ContentId>
            <Name>A really, really, really long name</Name>
          </ContentMetaData>
        </ProgramContent>
      </Content>
    </ContentTransfer>
  </BxfData>
</BxfMessage>

```



### B.8.2.2 Reply Error Example

The following reply message indicates that the receiving device experienced an internal error when processing the received message. The received message may, in fact, be valid, but the receiver cannot process it at this time.

```
<?xml version="1.0" encoding="UTF-8"?>
<BxfMessage id="urn:uuid:24567890-2345-2345-1234-345678901234" messageType="Reply" dateTime="2006-08-16T20:44:43.16"
origin="Automation System" originType="Automation" destination="Traffic" userName="jdoe" status="error"
error="processing_exception" errorDescription="Automation error occurred when processing message. Error occurred in
Automation.MessageHandler.ProcessMessage(). Error: NullPointerException at line 1173 of AutomationHandler.cs. Contact Automation
support." xmlns="http://smpte-ra.org/schemas/2021/2008/BXF" originMessageId="urn:uuid:12345678-1234-1234-1234-123456789012"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://smpte-ra.org/schemas/2021/2008/BXF
BxfSchema.xsd">
  <BxfQuery>
    <WhereClause>BxfMessage/BxfData/Content/ProgramType/ContentMetaData/ContentId/HouseNumber="AS01002"</WhereClause>
    <ReturnStructure>Content/*</ReturnStructure>
  </BxfQuery>
</BxfMessage>
```

## B.9. Query Syntax

BXF Query has adopted a subset of XPATH 2.0 (<http://www.w3.org/TR/xpath20/>) to implement the <WhereClause> and <ReturnStructure> nodes syntax.

The following is the grammar used to define the syntax for both nodes in BNF notation. This grammar is implemented as XML regular expressions (see schema for implementation)

### B.9.1 Syntax:

BxfPathExpression ::= NodeName | BxfPathExpression/NodeName

BxfVariable ::= BxfPathExpression/TerminalNodeName | BxfPathExpression/@AttributeName

BxfReturnStructure ::= BxfPathExpression | BxfPathExpression/\*

BxfWhereClause ::= BxfSimpleWhereClause | BxfSimpleWhereClause BooleanOperator BxfWhereClause

BxfSimpleWhereClause ::= BxfVariable ComparisonOperator QuotedString

ComparisonOperator ::= = | != | < | > | <= | >= | <>

BooleanOperator ::= AND | OR

QuotedString ::= " unquoted string "

TerminalNodeName ::= node with no descendents.

AttributeName ::= any attribute associated with the last node on the path

NodeName ::= any node defined in the BXF schema.

## B.9.2 Symbol Definition and Semantics:

- The “/” symbol is used to define absolute path from parent node to descendent.
- The “@” is used to make the distinction between whether the value is specifying that of a node or an attribute.
- The “\*” symbol is used to specify “all” from that point on.
- 

## B.9.3 Reference Examples

### B.9.3.1 All active Channels for a given date range

```
<BxfMessage ....>
<BxfQuery>
  <WhereClause> Schedule/@scheduleStart=> "2006-08-16T05:00:00.00" </WhereClause>
  <ReturnStructure>Schedule/Channel/*</ReturnStructure>
</BxfQuery>
</BxfMessage>
```

The above query would return all channels for which a schedule >=2006-08-16T05:00:00.000 is defined. Returned record set would be something like:

```
<BxfMessage ....>
<BxfAction ....>
  <Schedules>
    <Schedule scheduleId="1234" .....>
      <Channel .....>
        </Channel>
      </Schedule>
    <Schedule...>
      ...
    </Schedule>
  </BxfAction>
</BxfMessage>
```

The “\*” indicates all sub-nodes at that level and below, if the “\*” is omitted only that node and its attributes would be returned.

### B.9.3.2 Schedule identification for a given date range

```
<BxfMessage>
<BxfQuery>
  <WhereClause>Schedule/@scheduleStart=> '2006-08-16T05:00:00.00'
  </WhereClause>
  <ReturnStructure>Schedule</ReturnStructure>
</BxfQuery>
</BxfMessage>
```

Must return

```
<BxfMessage ....>
<BxfAction ....>
  <Schedules>
    <Schedule scheduleId="1234" ...../>
    <Schedule.../>
    ...
  </BxfAction>
</BxfMessage>
```

```

</BxfAction>
</BxfMessage>

```

### B.9.3.3 Schedules for a specific Channel for a given date range

```

<BxfMessage>
<BxfQuery>
  <WhereClause>Schedule/Channel/Name="WXYZ" and Schedule/@scheduleStart= '2006-08-16T05:00:00.00'
  </WhereClause>
  <ReturnStructure>Schedule/*</ReturnStructure>
</BxfQuery>
</BxfMessage>

```

This query would return, Schedules including all events for Channel Named “WXYZ” with a scheduleStart>='2006-08-16T05:00:00.00'

```

<BxfMessage ....>
<BxfAction ....>
  <Schedules>
    <Schedule scheduleId="1234" .....>
      <Channel ...>
        <Name>WXYZ</Name>
        ....
      </Channel>
      <Scheduled...>
        ...
      </Scheduled>
      ...
    </Schedule.../>
    ...
  </BxfAction>
</BxfMessage>

```

### B.9.3.4 Only “as Run” schedules on Channel WXYZ

```

<BxfMessage>
<BxfQuery>
  <WhereClause>Schedule/Channel/Name="WXYZ" and Schedule/@scheduleStart= '2006-08-16T05:00:00.00'
  </WhereClause>
  <ReturnStructure>Schedule/AsRun/*</ReturnStructure>
</BxfQuery>
</BxfMessage>

```

### B.9.3.5 Content Transfer Query

This query returns the status of all content transfers on the device specified as the message destination.

```

<BxfMessage ...>
<BxfQuery>
  <WhereClause/>
  <ReturnStructure>ContentTransfer<ReturnStructure>
</BxfQuery>
</BxfMessage>

```

## Returns

```
<BxfMessage ....>
<BxfAction ....>
  <ContentTranfers transferId=.. transferType=... status=../>
  <ContentTranfers transferId=.. transferType=... status=../>
  ...
</BxfAction>
/BxfMessage>
```

## Annex C - BXF Schema (Informative)

The following schema documentation (**BxfSchema.xsd**) was generated directly from the BXF schema. It contains details on all schema elements, their relationships and annotations.

### C.1 Schema documentation usage

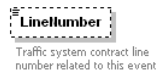
The schema documentation can be navigated using the various hyperlinks contained in this annex. Hold down the control (Ctrl) key while clicking the hyperlink (represented by [blue, underlined text](#)) to navigate through the documentation.

A number of graphics and symbols are used in the documentation to help describe the various elements of the schema and how the elements are related. These represent components and the relationships between schema components. The different components are represented by the following:

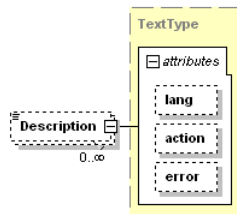
**Single element – mandatory:** Indicated by a rectangle with a solid border. The element name is inside the shape.



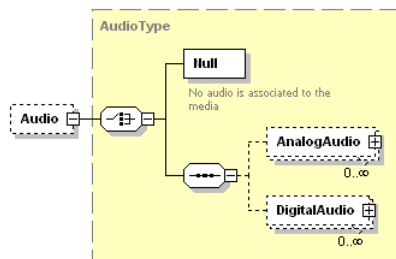
**Single element – optional:** Indicated by a rectangle with a dashed border. The element name is inside the shape.



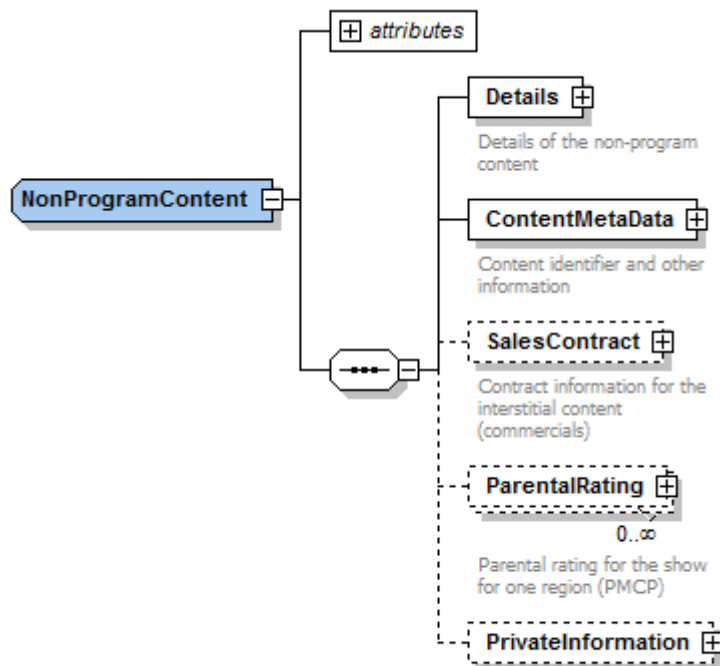
**Multiple elements:** Indicated by a rectangle with a solid border with a number range representing the minimum and maximum number of occurrences possible. In the example, 0 to infinity (0..∞) is shown.



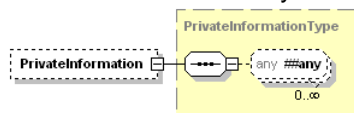
**Elements containing child elements:** Indicated by a [+] or [-] on the element, representing an element containing additional attributes or elements. The [+] indicates that additional elements are available for display. The [-] indicates that the child elements are displayed.



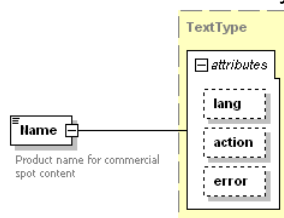
**Complex type:** Indicated by a partial hexagon and a child element symbol.



**Wildcards:** Indicated by an octagon with any at the left.

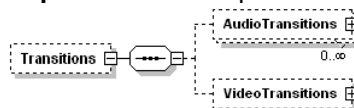


**Attributes:** Indicated by the word 'attributes'

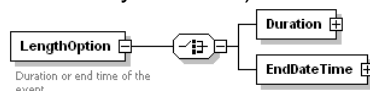


The relationships between components are represented by symbols for sequence and choice.

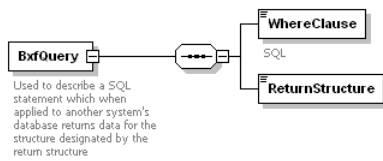
**Sequence:** The sequence compositor (three horizontal lines with a dot in the middle) shows that all elements occur in sequence.



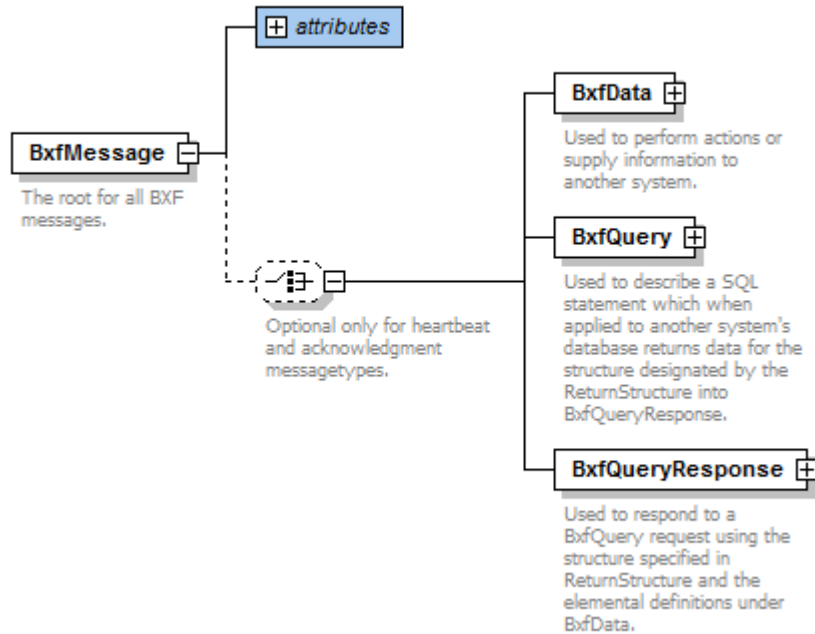
**Choice:** The choice compositor (a box with a plus sign and a dot) shows the 'or' relationship between associated components (only one choice may be made).



**Solid lines:** Solid lines connecting elements represent mandatory connections within the schema diagrams.



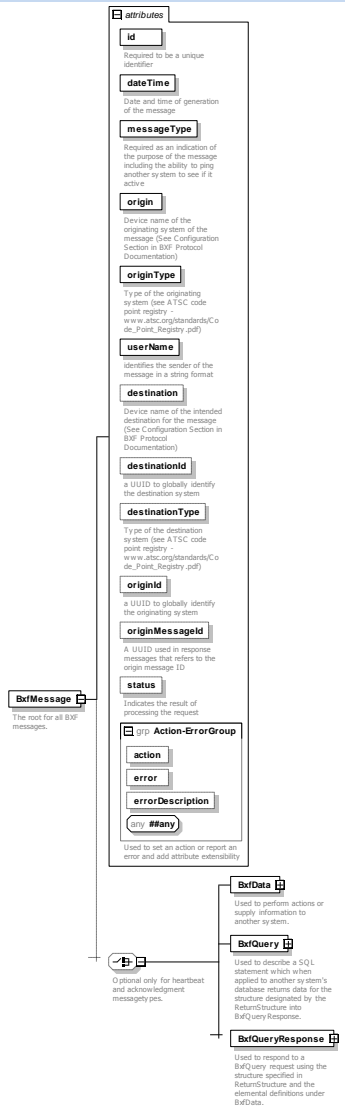
**Dashed lines:** Dashed lines between elements represent optional connections within the schema diagrams.



C. 2 Schema - BxfSchema.xsd

element BxfMessage

diagram



namespace http://smpte-ra.org/schemas/2021/2008/BXF

properties content complex





```

<xs:complexType>
  <xs:sequence>
    <xs:choice minOccurs="0">
      <xs:element name="ContentTransfer" type="ContentTransfer" maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>Used to transfer or transcode media from one location to another location</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="Schedule" type="Schedule" maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>Used to describe a specific list of content in a linear playlist sequence</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="Format" type="Format" maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>The definition of the empty structure of a program as used by the traffic system to construct a schedule grid.</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="Content" type="Content" maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>Used to describe the content at a specific location</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="Configuration" type="Configuration" maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>Used to describe the configuration values of a system</xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:choice>
    <xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
  </xs:sequence>
  <xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>
</xs:element>
<xs:element name="BxfQuery">
  <xs:annotation>
    <xs:documentation>Used to describe a SQL statement which when applied to another system's database returns data for the structure designated by the
    ReturnStructure into BxfQueryResponse.</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="WhereClause" type="QueryString">
        <xs:annotation>
          <xs:documentation>Simple SQL statements using BxfData elements and restricted by the format specified by QueryStringType (see BxfTypes).
        </xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="ReturnStructure" type="QueryStringIdentifier" maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>Describes the form of data you want returned into the BxfQueryResponse based on the format specified by QueryStringIdentifierType
          (see BxfTypes).</xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:sequence>
    <xs:attribute name="requestChunking" type="xs:boolean">

```

```

<xs:annotation>
  <xs:documentation>Indicates that the response to the query should be sent in multiple messages not to exceed the value set in
memoryLimit.</xs:documentation>
</xs:annotation>
</xs:attribute>
<xs:attribute name="memoryLimit" type="xs:integer">
  <xs:annotation>
    <xs:documentation>Maximum XML file size to return for a BxfQueryResponse. Integer value expressed in total KB (value=1000 same as
1MB).</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>
</xs:element>
<xs:element name="BxfQueryResponse">
  <xs:annotation>
    <xs:documentation>Used to respond to a BxfQuery request using the structure specified in ReturnStructure and the elemental definitions under
BxfData.</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:any namespace="##any" processContents="lax" maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>The return message contains the data in the same construct as BxfData based on the ReturnStructure definition and the appropriate
level of the return data.</xs:documentation>
        </xs:annotation>
      </xs:any>
    </xs:sequence>
    <xs:attribute name="chunkingFlag" type="xs:boolean">
      <xs:annotation>
        <xs:documentation>Indicates that the response message is in multiple parts (chunked) with itemNumber and totalItems indicating the organization of each
segment.</xs:documentation>
      </xs:annotation>
    </xs:attribute>
    <xs:attribute name="itemNumber" type="xs:positiveInteger">
      <xs:annotation>
        <xs:documentation>If a message is chunked, this indicates the position of each message relative to the total messages.</xs:documentation>
      </xs:annotation>
    </xs:attribute>
    <xs:attribute name="totalItems" type="xs:positiveInteger">
      <xs:annotation>
        <xs:documentation>If a message is chunked, this indicates the total number of messages that need to be reassembled to create the complete
message.</xs:documentation>
      </xs:annotation>
    </xs:attribute>
    <xs:attributeGroup ref="Action-ErrorGroup"/>
  </xs:complexType>
</xs:element>
</xs:choice>
<xs:attribute name="id" use="required">
  <xs:annotation>
    <xs:documentation>Required to be a unique identifier</xs:documentation>
  </xs:annotation>
</xs:simpleType>
<xs:restriction base="Uuid"/>

```

```

</xs:simpleType>
</xs:attribute>
<xs:attribute name="dateTime" type="xs:dateTime" use="required">
  <xs:annotation>
    <xs:documentation>Date and time of generation of the message</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="messageType" type="MessageType" use="required">
  <xs:annotation>
    <xs:documentation>Required as an indication of the purpose of the message including the ability to ping another system to see if it active</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="origin" use="required">
  <xs:annotation>
    <xs:documentation>Device name of the originating system of the message (See Configuration Section in BXF Protocol Documentation)</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
      <xs:maxLength value="255"/>
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
<xs:attribute name="originType" type="OriginType" use="required">
  <xs:annotation>
    <xs:documentation>Type of the originating system (see ATSC code point registry - www.atsc.org/standards/Code_Point_Registry.pdf)</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="userName" use="required">
  <xs:annotation>
    <xs:documentation>identifies the sender of the message in a string format</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
      <xs:maxLength value="255"/>
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
<xs:attribute name="destination" type="xs:string">
  <xs:annotation>
    <xs:documentation>Device name of the intended destination for the message (See Configuration Section in BXF Protocol Documentation)</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="destinationId" type="Uuid">
  <xs:annotation>
    <xs:documentation>a UUID to globally identify the destination system</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="destinationType" type="DestinationType">
  <xs:annotation>
    <xs:documentation>Type of the destination system (see ATSC code point registry - www.atsc.org/standards/Code_Point_Registry.pdf)</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="originId" type="Uuid">

```

	<pre> &lt;xs:annotation&gt;   &lt;xs:documentation&gt;a UUID to globally identify the originating system&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="originMessageId" type="Uuid"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A UUID used in response messages that refers to the origin message ID&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="status" type="BxfStatus"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates the result of processing the request&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	---

#### attribute **BxfMessage/@id**

type	restriction of <a href="#">Uuid</a>
properties	isRef 0 use required
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}
annotation	documentation Required to be a unique identifier
source	<pre> &lt;xs:attribute name="id" use="required"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required to be a unique identifier&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="Uuid"/&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **BxfMessage/@dateTime**

type	<b>xs:dateTime</b>
properties	isRef 0 use required
annotation	documentation Date and time of generation of the message
source	<pre> &lt;xs:attribute name="dateTime" type="xs:dateTime" use="required"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date and time of generation of the message&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

### attribute BxfMessage/@messageType

type	<a href="#">MessageType</a>
properties	isRef 0 use required
facets	enumeration Acknowledgement enumeration Heartbeat enumeration Information enumeration Message Status Request enumeration Request enumeration Reply
annotation	documentation Required as an indication of the purpose of the message including the ability to ping another system to see if it active
source	<pre>&lt;xs:attribute name="messageType" type="MessageType" use="required"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Required as an indication of the purpose of the message including the ability to ping another system to see if it active&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

### attribute BxfMessage/@origin

type	restriction of xs:string
properties	isRef 0 use required
facets	minLength 1 maxLength 255
annotation	documentation Device name of the originating system of the message (See Configuration Section in BXF Protocol Documentation)
source	<pre>&lt;xs:attribute name="origin" use="required"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Device name of the originating system of the message (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt; &lt;xs:restriction base="xs:string"&gt; &lt;xs:minLength value="1"/&gt; &lt;xs:maxLength value="255"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt;</pre>

### attribute BxfMessage/@originType

type	<a href="#">OriginType</a>
properties	isRef 0 use required
annotation	documentation Type of the originating system (see ATSC code point registry - <a href="http://www.atsc.org/standards/Code_Point_Registry.pdf">www.atsc.org/standards/Code_Point_Registry.pdf</a> )
source	<pre>&lt;xs:attribute name="originType" type="OriginType" use="required"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Type of the originating system (see ATSC code point registry - <a href="http://www.atsc.org/standards/Code_Point_Registry.pdf">www.atsc.org/standards/Code_Point_Registry.pdf</a>)&lt;/xs:documentation&gt;</pre>

	<code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>
--	---

#### attribute **BxfMessage/@userName**

type	restriction of <b>xs:string</b>
properties	isRef 0 use required
facets	minLength 1 maxLength 255
annotation	documentation identifies the sender of the message in a string format
source	<code>&lt;xs:attribute name="userName" use="required"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;identifies the sender of the message in a string format&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;xs:simpleType&gt;</code> <code>&lt;xs:restriction base="xs:string"&gt;</code> <code>&lt;xs:minLength value="1"/&gt;</code> <code>&lt;xs:maxLength value="255"/&gt;</code> <code>&lt;/xs:restriction&gt;</code> <code>&lt;/xs:simpleType&gt;</code> <code>&lt;/xs:attribute&gt;</code>

#### attribute **BxfMessage/@destination**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation Device name of the intended destination for the message (See Configuration Section in BXF Protocol Documentation)
source	<code>&lt;xs:attribute name="destination" type="xs:string"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;Device name of the intended destination for the message (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>

#### attribute **BxfMessage/@destinationId**

type	<a href="#">Uuid</a>
properties	isRef 0
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}
annotation	documentation a UUID to globally identify the destination system
source	<code>&lt;xs:attribute name="destinationId" type="Uuid"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;a UUID to globally identify the destination system&lt;/xs:documentation&gt;</code>

	<code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>
--	---

#### attribute **BxfMessage/@destinationType**

type	<a href="#">DestinationType</a>
properties	isRef 0
annotation	documentation Type of the destination system (see ATSC code point registry - <a href="http://www.atsc.org/standards/Code_Point_Registry.pdf">www.atsc.org/standards/Code_Point_Registry.pdf</a> )
source	<code>&lt;xs:attribute name="destinationType" type="DestinationType"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> Type of the destination system (see ATSC code point registry - <a href="http://www.atsc.org/standards/Code_Point_Registry.pdf">www.atsc.org/standards/Code_Point_Registry.pdf</a> ) <code>&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>

#### attribute **BxfMessage/@originId**

type	<a href="#">Uuid</a>
properties	isRef 0
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}\-[a-fA-F0-9]{4}}{3}\-[a-fA-F0-9]{12}
annotation	documentation a UUID to globally identify the originating system
source	<code>&lt;xs:attribute name="originId" type="Uuid"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> a UUID to globally identify the originating system <code>&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>

#### attribute **BxfMessage/@originMessageId**

type	<a href="#">Uuid</a>
properties	isRef 0
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}\-[a-fA-F0-9]{4}}{3}\-[a-fA-F0-9]{12}
annotation	documentation A UUID used in response messages that refers to the origin message ID
source	<code>&lt;xs:attribute name="originMessageId" type="Uuid"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;</code> A UUID used in response messages that refers to the origin message ID <code>&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>

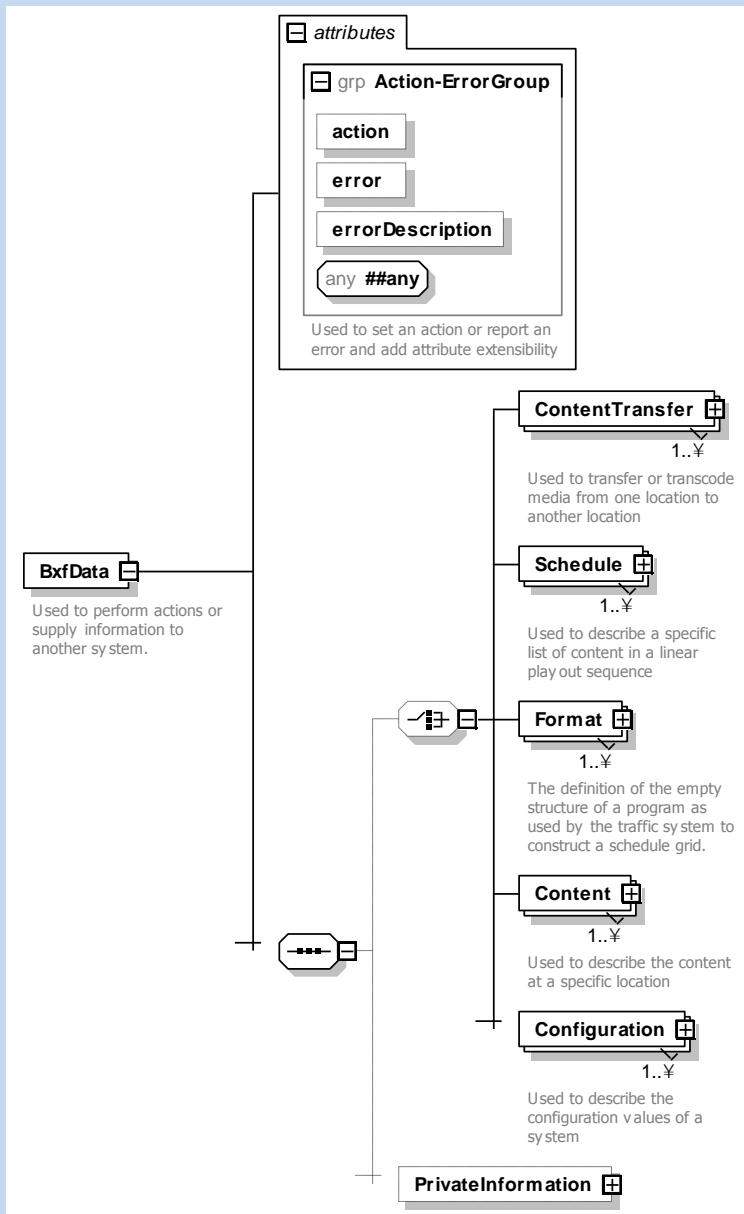


attribute **BxfMessage/@status**

type	<a href="#">BxfStatus</a>
properties	isRef 0
annotation	documentation Indicates the result of processing the request
source	<pre> &lt;xs:attribute name="status" type="BxfStatus"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates the result of processing the request&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

# element **BxfMessage/BxfData**

diagram



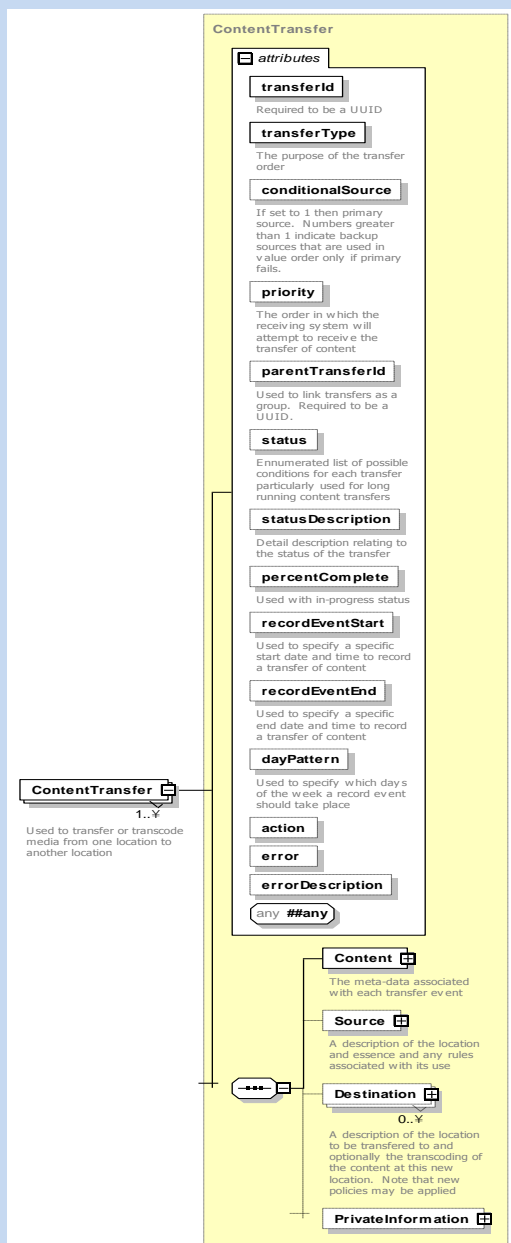
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

properties isRe 0  
f

	cont ent	complex				
children	<a href="#">ContentTransfer</a> <a href="#">Schedule</a> <a href="#">Format</a> <a href="#">Content</a> <a href="#">Configuration</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a>  <a href="#">error</a> <a href="#">errorDescri</a> <a href="#">ption</a>	Type <a href="#">pmcp:actionTy</a> <a href="#">pe</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional  optional optional	Default	Fixed	annotation
annotation	documentation Used to perform actions or supply information to another system.					
source	<pre> &lt;xs:element name="BxfData"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to perform actions or supply information to another system.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:choice minOccurs="0"&gt;         &lt;xs:element name="ContentTransfer" type="ContentTransfer" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Used to transfer or transcode media from one location to another location&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Schedule" type="Schedule" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Used to describe a specific list of content in a linear playout sequence&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Format" type="Format" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;The definition of the empty structure of a program as used by the traffic system to construct a schedule grid.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Content" type="Content" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Used to describe the content at a specific location&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="Configuration" type="Configuration" maxOccurs="unbounded"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Used to describe the configuration values of a system&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:choice&gt;       &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;     &lt;/xs:sequence&gt;     &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>					

# element BxfMessage/BxfData/ContentTransfer

diagram

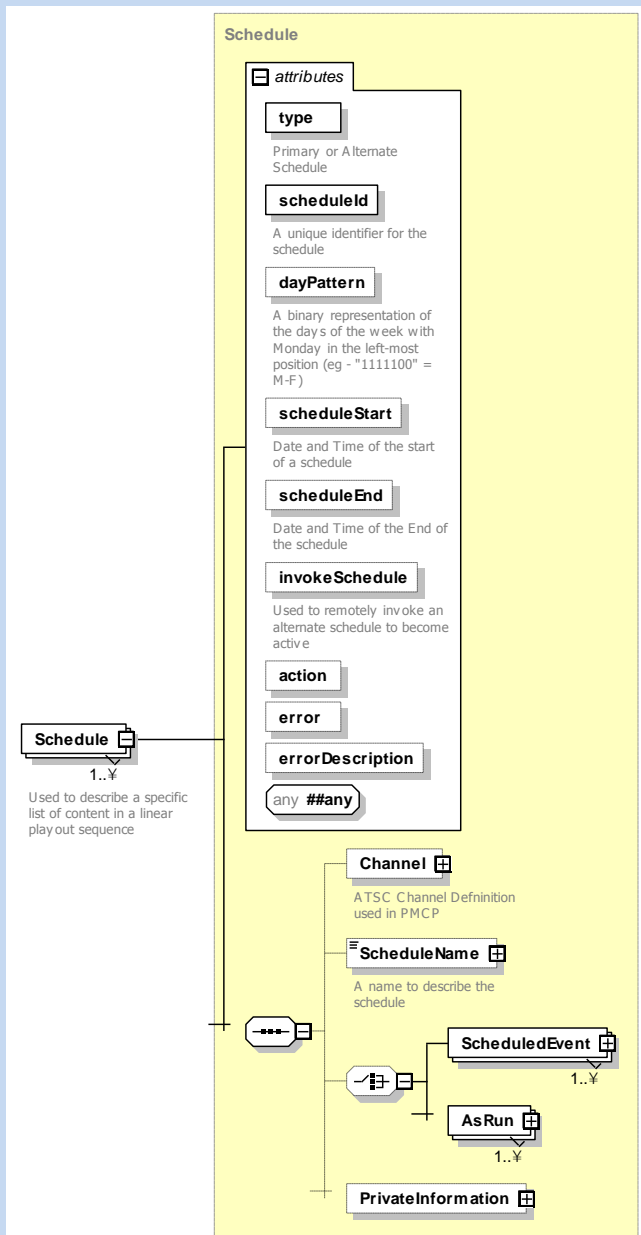


namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

type	<a href="#">ContentTransfer</a>					
properties	isRef	0				
	minOcc	1				
	maxOcc	unbounded				
	content	complex				
children	<a href="#">Content</a> <a href="#">Source</a> <a href="#">Destination</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">transferId</a>	<a href="#">Uuid</a>	required			documentation Required to be a UUID
	<a href="#">transferType</a>	<a href="#">TransferType</a>	required			documentation The purpose of the transfer order
	<a href="#">conditionalSource</a>	xs:positiveInteger		1		documentation If set to 1 then primary source. Numbers greater than 1 indicate backup sources that are used in value order only if primary fails.
	<a href="#">priority</a>	<a href="#">PriorityType</a>		Normal		documentation The order in which the receiving system will attempt to receive the transfer of content
	<a href="#">parentTransferId</a>	<a href="#">Uuid</a>				documentation Used to link transfers as a group. Required to be a UUID.
	<a href="#">status</a>	<a href="#">TransferStatusType</a>				documentation Enumerated list of possible conditions for each transfer particularly used for long running content transfers
	<a href="#">statusDescription</a>	xs:string				documentation Detail description relating to the status of the transfer
	<a href="#">percentComplete</a>	derived by: xs:short				documentation Used with in-progress status
	<a href="#">recordEventStart</a>	xs:dateTime				documentation Used to specify a specific start date and time to record a transfer of content
	<a href="#">recordEventEnd</a>	xs:dateTime				documentation Used to specify a specific end date and time to record a transfer of content
	<a href="#">dayPattern</a>	<a href="#">DayPattern</a>				documentation Used to specify which days of the week a record event should take place
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
annotation	documentation Used to transfer or transcode media from one location to another location					
source	<pre> &lt;xs:element name="ContentTransfer" type="ContentTransfer" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to transfer or transcode media from one location to another location&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

diagram



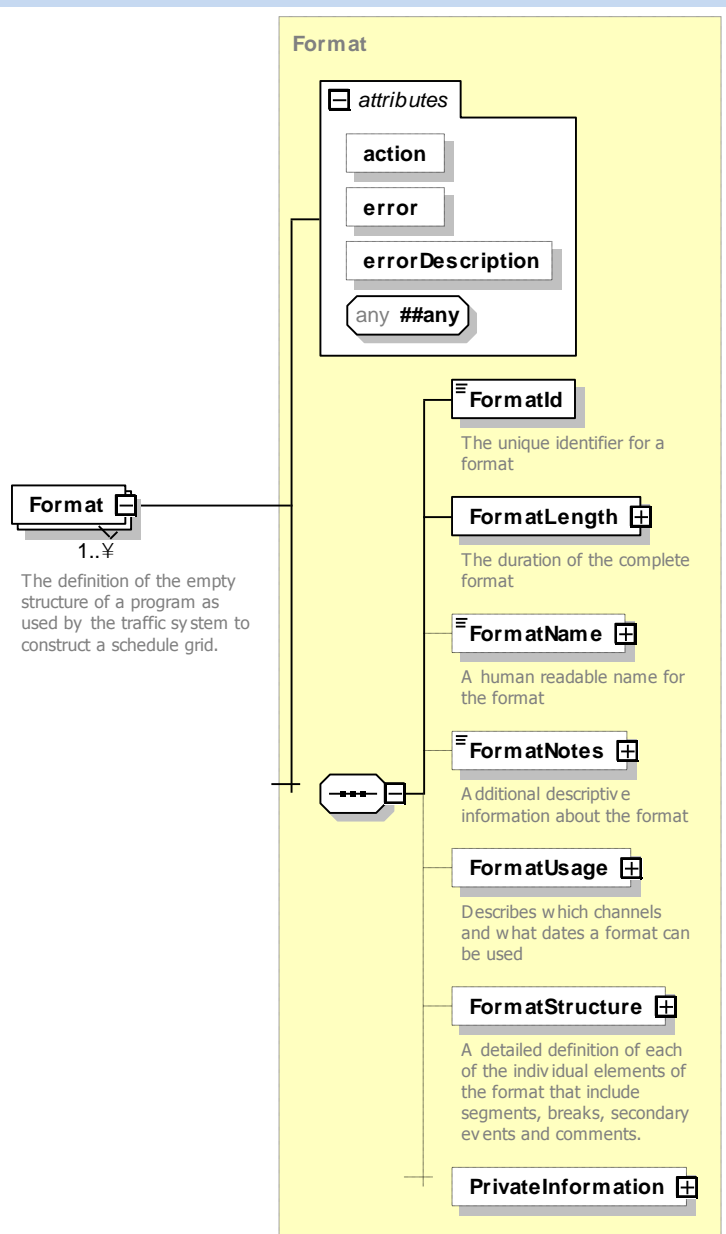
namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

type	<a href="#">Schedule</a>					
properties	isRef	0				
	minOcc	1				
	maxOcc	unbounded				
	content	complex				
children	<a href="#">Channel</a> <a href="#">ScheduleName</a> <a href="#">ScheduledEvent</a> <a href="#">AsRun</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">type</a>	<a href="#">ScheduleType</a>	required			documentation Primary or Alternate Schedule
	<a href="#">scheduleId</a>	<a href="#">Uuid</a>	required			documentation A unique identifier for the schedule
	<a href="#">dayPattern</a>	<a href="#">DayPattern</a>				documentation A binary representation of the days of the week with Monday in the left-most position (eg - "1111100" = M-F)
	<a href="#">scheduleStart</a>	<b>xs:dateTime</b>	optional			documentation Date and Time of the start of a schedule
	<a href="#">scheduleEnd</a>	<b>xs:dateTime</b>	optional			documentation Date and Time of the End of the schedule
	<a href="#">invokeSchedule</a>	<b>xs:boolean</b>				documentation Used to remotely invoke an alternate schedule to become active
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
annotation	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
	documentation Used to describe a specific list of content in a linear playout sequence					
source	<pre> &lt;xs:element name="Schedule" type="Schedule" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to describe a specific list of content in a linear playout sequence&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

# element **BxfMessage/BxfData/Format**

diagram



namespace

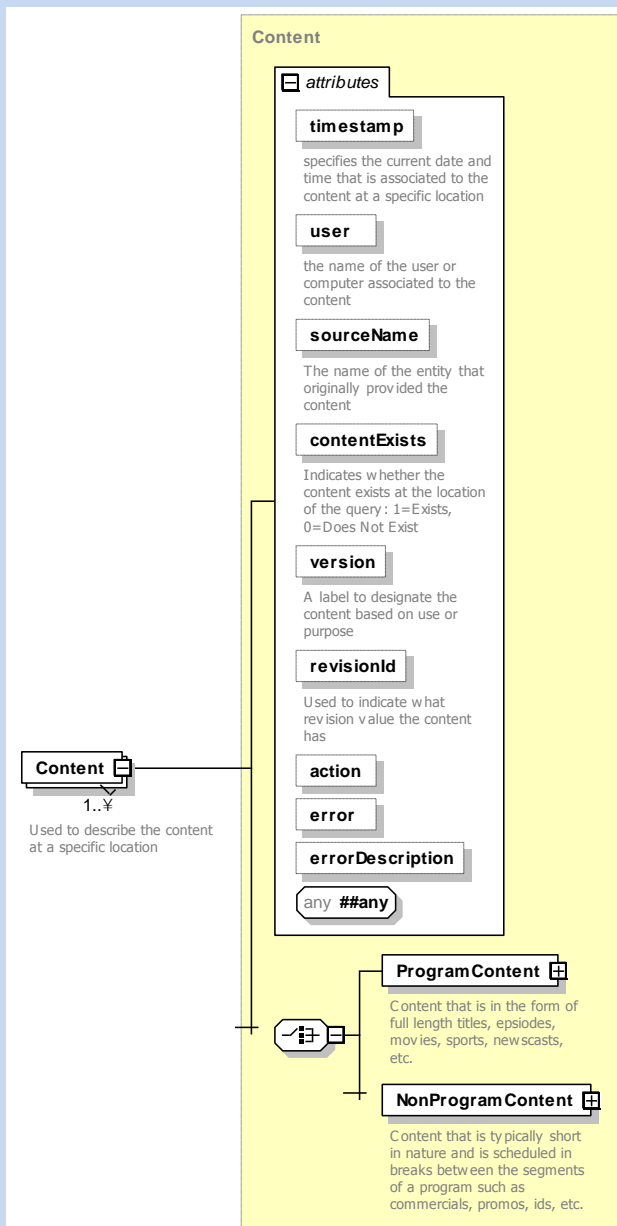
<http://smpte-ra.org/schemas/2021/2008/BXF>



type	<a href="#">Format</a>					
properties	isRef	0				
	minOcc	1				
	maxOcc	unbounded				
	content	complex				
children	<a href="#">FormatId</a> <a href="#">FormatLength</a> <a href="#">FormatName</a> <a href="#">FormatNotes</a> <a href="#">FormatUsage</a> <a href="#">FormatStructure</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation The definition of the empty structure of a program as used by the traffic system to construct a schedule grid.					
source	<pre>&lt;xs:element name="Format" type="Format" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The definition of the empty structure of a program as used by the traffic system to construct a schedule grid.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

# element **BxfMessage/BxfData/Content**

diagram



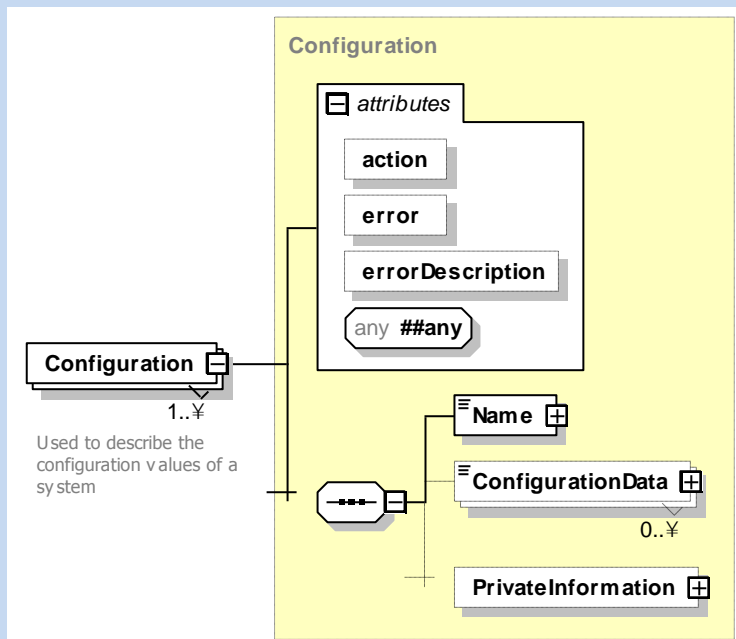
namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

type	<a href="#">Content</a>					
properties	isRef	0				
	minOcc	1				
	maxOcc	unbounded				
	content	complex				
children	<a href="#">ProgramContent</a> <a href="#">NonProgramContent</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">timestamp</a>	<b>xs:dateTime</b>				documentation specifies the current date and time that is associated to the content at a specific location
	<a href="#">user</a>	derived by: <b>xs:string</b>				documentation the name of the user or computer associated to the content
	<a href="#">sourceName</a>	derived by: <b>xs:string</b>				documentation The name of the entity that originally provided the content
	<a href="#">contentExists</a>	<b>xs:boolean</b>				documentation Indicates whether the content exists at the location of the query: 1=Exists, 0=Does Not Exist
	<a href="#">version</a>	derived by: <b>xs:string</b>				documentation A label to designate the content based on use or purpose
	<a href="#">revisionId</a>	derived by: <b>xs:string</b>				documentation Used to indicate what revision value the content has
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation Used to describe the content at a specific location					
source	<pre> &lt;xs:element name="Content" type="Content" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to describe the content at a specific location&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

# element **BxfMessage/BxfData/Configuration**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [Configuration](#)

properties  
isRef 0  
minOcc 1  
maxOcc unbounded  
content complex

children [Name](#) [ConfigurationData](#) [PrivateInformation](#)

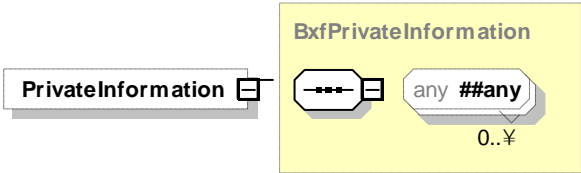
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			

annotation  
documentation  
Used to describe the configuration values of a system

source

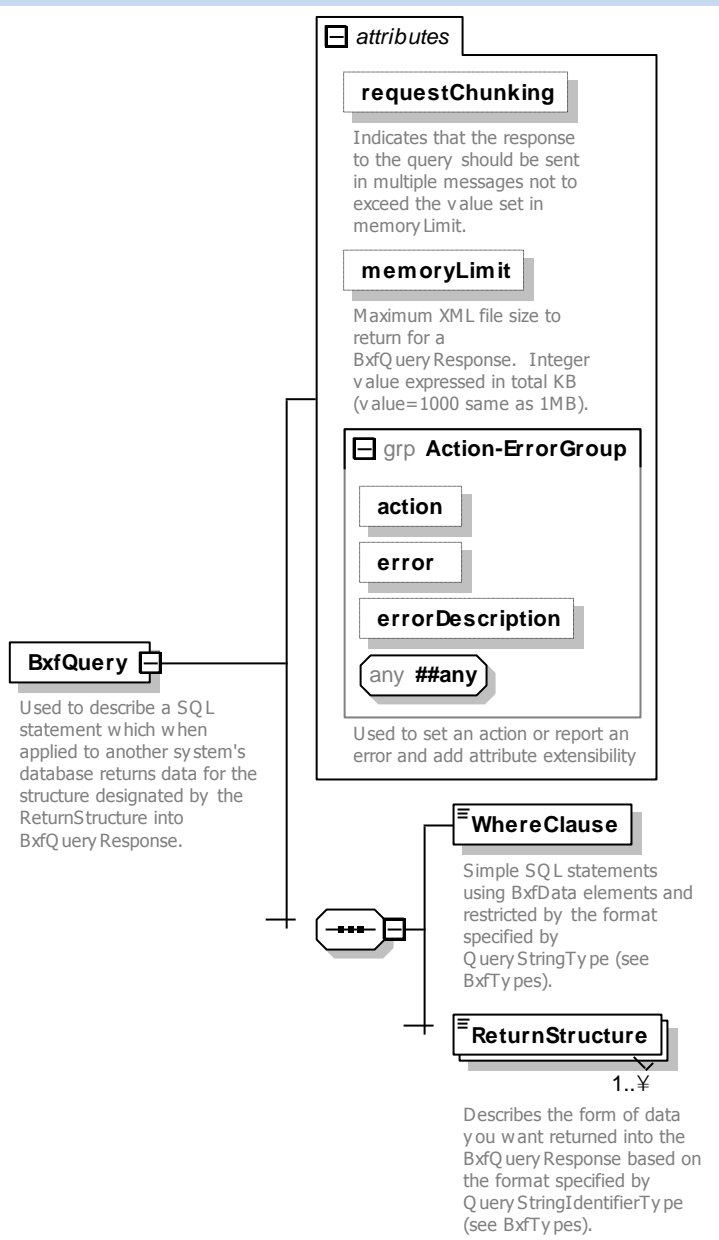
```
<xs:element name="Configuration" type="Configuration" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Used to describe the configuration values of a system</xs:documentation>
  </xs:annotation>
</xs:element>
```

element **BxfMessage/BxfData/PrivateInformation**

diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">BxfPrivateInformation</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
source	<code>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</code>								

# element BxfMessage/BxfQuery

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

properties	isRef content	0 complex				
children	<a href="#">WhereClause</a> <a href="#">ReturnStructure</a>					
attributes	Name <a href="#">requestChunking</a>  <a href="#">memoryLimit</a>  <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <b>xs:boolean</b>  <b>xs:integer</b>  <b>pmcp:actionType</b> <b>BxfError</b> <b>xs:string</b>	Use   optional optional optional	Default      	Fixed      	annotation documentation Indicates that the response to the query should be sent in multiple messages not to exceed the value set in memoryLimit. documentation Maximum XML file size to return for a BxfQueryResponse. Integer value expressed in total KB (value=1000 same as 1MB).
annotation	documentation Used to describe a SQL statement which when applied to another system's database returns data for the structure designated by the ReturnStructure into BxfQueryResponse.					
source	<pre> &lt;xs:element name="BxfQuery"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to describe a SQL statement which when applied to another system's database returns data for the structure designated by the ReturnStructure into BxfQueryResponse.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="WhereClause" type="QueryString"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Simple SQL statements using BxfData elements and restricted by the format specified by QueryStringType (see BxfTypes).         &lt;/xs:documentation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="ReturnStructure" type="QueryStringIdentifier" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Describes the form of data you want returned into the BxfQueryResponse based on the format specified by QueryStringIdentifierType (see BxfTypes).&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;     &lt;xs:attribute name="requestChunking" type="xs:boolean"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Indicates that the response to the query should be sent in multiple messages not to exceed the value set in memoryLimit.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:attribute&gt;     &lt;xs:attribute name="memoryLimit" type="xs:integer"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Maximum XML file size to return for a BxfQueryResponse. Integer value expressed in total KB (value=1000 same as 1MB).&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:attribute&gt;     &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>					

attribute **BxfMessage/BxfQuery/@requestChunking**

type	<b>xs:boolean</b>
properties	isRef 0
annotation	documentation Indicates that the response to the query should be sent in multiple messages not to exceed the value set in memoryLimit.
source	<pre> &lt;xs:attribute name="requestChunking" type="xs:boolean"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates that the response to the query should be sent in multiple messages not to exceed the value set in memoryLimit.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

attribute **BxfMessage/BxfQuery/@memoryLimit**

type	<b>xs:integer</b>
properties	isRef 0
annotation	documentation Maximum XML file size to return for a BxfQueryResponse. Integer value expressed in total KB (value=1000 same as 1MB).
source	<pre> &lt;xs:attribute name="memoryLimit" type="xs:integer"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Maximum XML file size to return for a BxfQueryResponse. Integer value expressed in total KB (value=1000 same as 1MB).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

## element BxfMessage/BxfQuery/WhereClause

diagram	<div><div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div></div></div><div><b>WhereClause</b></div><div>Simple SQL statements using BxfData elements and restricted by the format specified by QueryStringType (see BxfTypes).</div></div></div></div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">QueryString</a>
properties	isRef 0 content simple
facets	pattern [A-Z][a-zA-Z0-9]*(/[A-Z][a-zA-Z0-9]*)*/@[a-z][a-zA-Z0-9]*{0,1}(\s*(= &gt;= &lt; &lt;= !=)\s*[&quot;][^&quot;]*[&quot;](\s+(AND and or OR)\s+[A-Z][a-zA-Z0-9]*(/[A-Z][a-zA-Z0-9]*)*/@[a-z][a-zA-Z0-9]*)*(/[a-z][a-zA-Z0-9]*){0,1}\s*(= &gt;= &lt; &lt;= !=)\s*[&quot;][^&quot;]*[&quot;]\s*)*
annotation	documentation Simple SQL statements using BxfData elements and restricted by the format specified by QueryStringType (see BxfTypes).
source	<xs:element name="WhereClause" type="QueryString"> <xs:annotation> <xs:documentation>Simple SQL statements using BxfData elements and restricted by the format specified by QueryStringType (see BxfTypes). </xs:documentation> </xs:annotation>



	</xs:element>
--	---------------

## element BxfMessage/BxfQuery/ReturnStructure

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">QueryStringIdentifier</a>
properties	isRef 0 minOcc 1 maxOcc unbounded content simple
facets	pattern [A-Z][a-zA-Z0-9]*(/[A-Z][a-zA-Z0-9]*)*(\^){0,1}
annotation	documentation Describes the form of data you want returned into the BxfQueryResponse based on the format specified by QueryStringIdentifierType (see BxfTypes).
source	<pre>&lt;xs:element name="ReturnStructure" type="QueryStringIdentifier" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Describes the form of data you want returned into the BxfQueryResponse based on the format specified by QueryStringIdentifierType (see BxfTypes).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

# element **BxfMessage/BxfQueryResponse**

diagram

## **BxfQueryResponse**

Used to respond to a BxfQuery request using the structure specified in ReturnStructure and the elemental definitions under BxfData.

### **attributes**

#### **chunkingFlag**

Indicates that the response message is in multiple parts (chunked) with itemNumber and totalItems indicating the organization of each segment.

#### **itemNumber**

If a message is chunked, this indicates the position of each message relative to the total messages.

#### **totalItems**

If a message is chunked, this indicates the total number of messages that need to be reassembled to create the complete message.

### **grp Action-ErrorGroup**

#### **action**

#### **error**

#### **errorDescription**

any ##any

Used to set an action or report an error and add attribute extensibility



any ##any

1..\*

The return message contains the data in the same construct as BxfData based on the ReturnStructure definition and the appropriate level of the return data.

namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

properties	isRef content	0 complex				
attributes	Name <a href="#">chunkingFlag</a>	Type <b>xs:boolean</b>	Use	Default	Fixed	annotation documentation Indicates that the response message is in multiple parts (chunked) with itemNumber and totalItems indicating the organization of each segment. documentation If a message is chunked, this indicates the position of each message relative to the total messages. documentation If a message is chunked, this indicates the total number of messages that need to be reassembled to create the complete message.
	<a href="#">itemNumber</a>	<b>xs:positiveInteger</b>				
	<a href="#">totalItems</a>	<b>xs:positiveInteger</b>				
	<a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	<a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	optional optional optional			
annotation	documentation Used to respond to a BxfQuery request using the structure specified in ReturnStructure and the elemental definitions under BxfData.					
source	<pre> &lt;xs:element name="BxfQueryResponse"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to respond to a BxfQuery request using the structure specified in ReturnStructure and the elemental definitions under BxfData.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:any namespace="##any" processContents="lax" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The return message contains the data in the same construct as BxfData based on the ReturnStructure definition and the appropriate level of the return data.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:any&gt;     &lt;/xs:sequence&gt;     &lt;xs:attribute name="chunkingFlag" type="xs:boolean"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Indicates that the response message is in multiple parts (chunked) with itemNumber and totalItems indicating the organization of each segment.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:attribute&gt;     &lt;xs:attribute name="itemNumber" type="xs:positiveInteger"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;If a message is chunked, this indicates the position of each message relative to the total messages.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:attribute&gt;     &lt;xs:attribute name="totalItems" type="xs:positiveInteger"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;If a message is chunked, this indicates the total number of messages that need to be reassembled to create the complete message.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:attribute&gt;     &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>					

attribute **BxfMessage/BxfQueryResponse/@chunkingFlag**

type	<b>xs:boolean</b>
properties	isRef 0
annotation	documentation Indicates that the response message is in multiple parts (chunked) with itemNumber and totalItems indicating the organization of each segment.
source	<pre>&lt;xs:attribute name="chunkingFlag" type="xs:boolean"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates that the response message is in multiple parts (chunked) with itemNumber and totalItems indicating the organization of each segment.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

attribute **BxfMessage/BxfQueryResponse/@itemNumber**

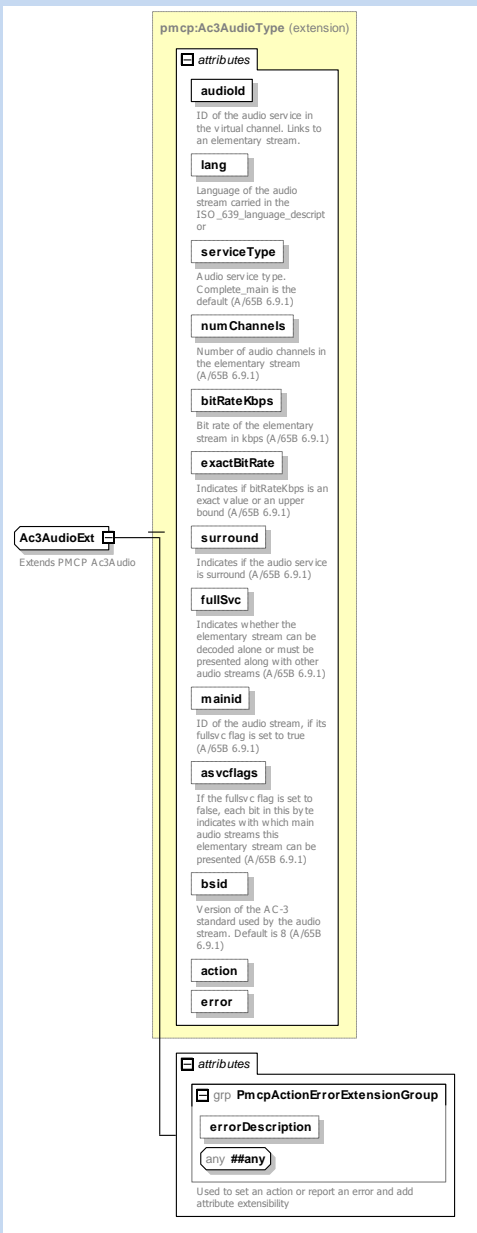
type	<b>xs:positiveInteger</b>
properties	isRef 0
annotation	documentation If a message is chunked, this indicates the position of each message relative to the total messages.
source	<pre>&lt;xs:attribute name="itemNumber" type="xs:positiveInteger"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If a message is chunked, this indicates the position of each message relative to the total messages.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

attribute **BxfMessage/BxfQueryResponse/@totalItems**

type	<b>xs:positiveInteger</b>
properties	isRef 0
annotation	documentation If a message is chunked, this indicates the total number of messages that need to be reassembled to create the complete message.
source	<pre>&lt;xs:attribute name="totalItems" type="xs:positiveInteger"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If a message is chunked, this indicates the total number of messages that need to be reassembled to create the complete message.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

# complexType Ac3AudioExt

diagram



namespace

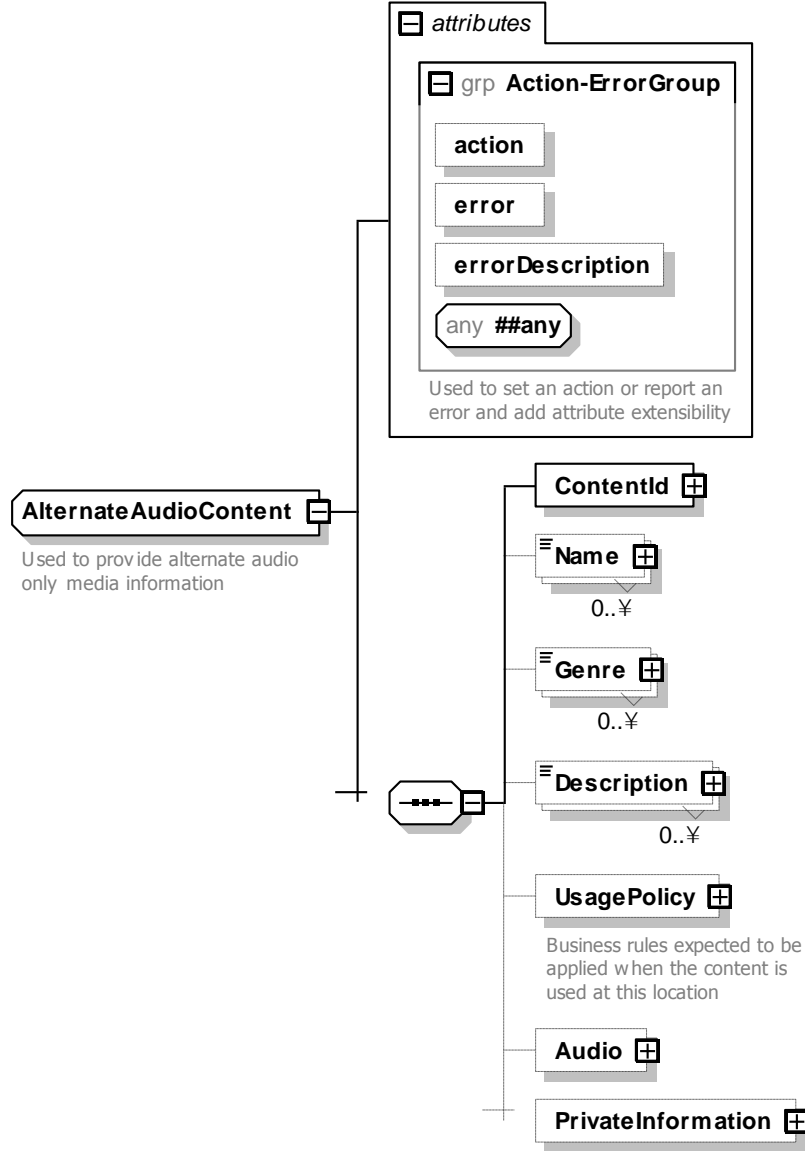
<http://smpte-ra.org/schemas/2021/2008/BXF>

type	extension of <a href="#">pmcp:Ac3AudioType</a>					
properties	base pmcp:Ac3AudioType					
used by	element <a href="#">DigitalAudio/Ac3Audio</a>					
attributes	Name <a href="#">audiold</a>	Type <a href="#">pmcp:audioldType</a>	Use required	Default	Fixed	annotation documentation ID of the audio service in the virtual channel. Links to an elementary stream. documentation Language of the audio stream carried in the ISO_639_language_descriptor documentation Audio service type. Complete_main is the default (A/65B 6.9.1) documentation Number of audio channels in the elementary stream (A/65B 6.9.1) documentation Bit rate of the elementary stream in kbps (A/65B 6.9.1) documentation Indicates if bitRateKbps is an exact value or an upper bound (A/65B 6.9.1) documentation Indicates if the audio service is surround (A/65B 6.9.1) documentation Indicates whether the elementary stream can be decoded alone or must be presented along with other audio streams (A/65B 6.9.1) documentation ID of the audio stream, if its fullsvc flag is set to true (A/65B 6.9.1) documentation If the fullsvc flag is set to false, each bit in this byte indicates with which main audio streams this elementary stream can be presented (A/65B 6.9.1) documentation Version of the AC-3 standard used by the audio stream. Default is 8 (A/65B 6.9.1)
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>	optional			
	<a href="#">serviceType</a>	<a href="#">pmcp:audioServiceType</a>	optional	complete_main		
	<a href="#">numChannels</a>	<a href="#">pmcp:numChannelsType</a>	optional	2/0		
	<a href="#">bitRateKbps</a>	<a href="#">pmcp:bitRateKbpsType</a>	optional	448		
	<a href="#">exactBitRate</a>	xs:boolean	optional	false		
	<a href="#">surround</a>	xs:boolean	optional			
	<a href="#">fullSvc</a>	xs:boolean	optional	true		
	<a href="#">mainid</a>	<a href="#">pmcp:mainidType</a>	optional			
	<a href="#">asvcflags</a>	xs:unsignedByte	optional			
	<a href="#">bsid</a>	<a href="#">pmcp:bsidType</a>	optional	8		
	<a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	<a href="#">pmcp:actionType</a> <a href="#">pmcp:errorType</a> xs:string	optional optional optional			
annotation	documentation Extends PMCP Ac3Audio					
source	<pre>&lt;xs:complexType name="Ac3AudioExt"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Extends PMCP Ac3Audio&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="pmcp:Ac3AudioType"&gt;       &lt;xs:attributeGroup ref="PmcpActionErrorExtensionGroup"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

</xs:complexContent>  
</xs:complexType>

## complexType AlternateAudioContent

diagram

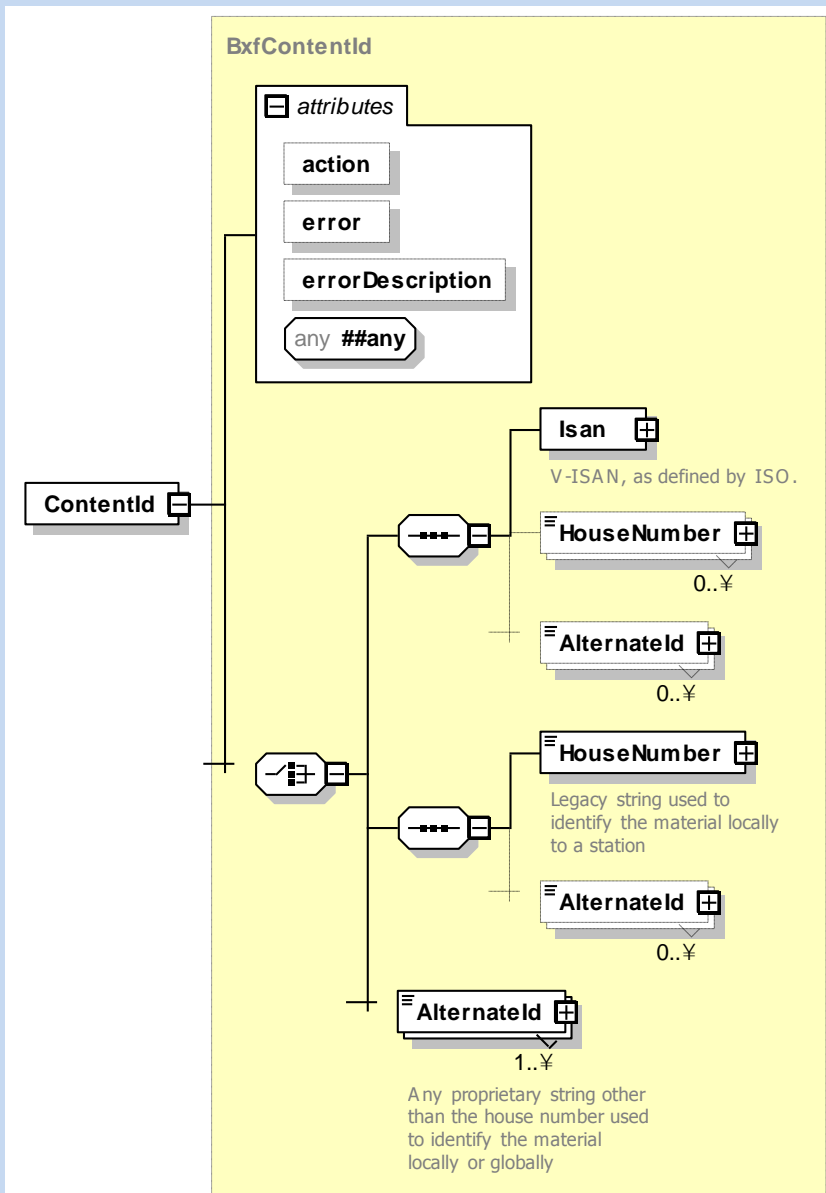


namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
children	<a href="#">ContentId</a> <a href="#">Name</a> <a href="#">Genre</a> <a href="#">Description</a> <a href="#">UsagePolicy</a> <a href="#">Audio</a> <a href="#">PrivateInformation</a>					
used by	elements	<a href="#">ScheduledEvent/AlternateAudioContent</a> <a href="#">ScheduledEvent/ScheduleElements/AlternateAudioContent</a>				
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Used to provide alternate audio only media information					
source	<pre> &lt;xs:complexType name="AlternateAudioContent"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to provide alternate audio only media information&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="ContentId" type="BxfContentId"/&gt;     &lt;xs:element name="Name" type="BxfText" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xs:element name="Genre" type="BxfText" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xs:element name="Description" type="BxfText" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xs:element name="UsagePolicy" type="UsagePolicy" minOccurs="0"/&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Business rules expected to be applied when the content is used at this location&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:sequence&gt;   &lt;xs:element name="Audio" type="Audio" minOccurs="0"/&gt;   &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>					



element **AlternateAudioContent/ContentId**

diagram

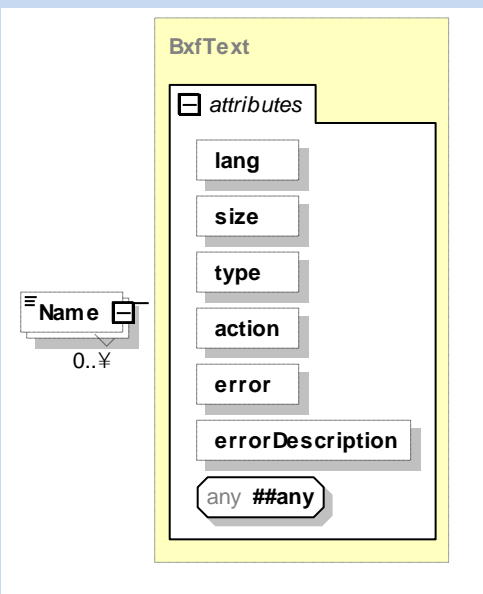


namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [BxfContentId](#)

properties	isRef content	0 complex				
children	<a href="#">Isan</a> <a href="#">HouseNumber</a> <a href="#">AlternateId</a> <a href="#">HouseNumber</a> <a href="#">AlternateId</a> <a href="#">AlternateId</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="ContentId" type="BxfContentId"/>					

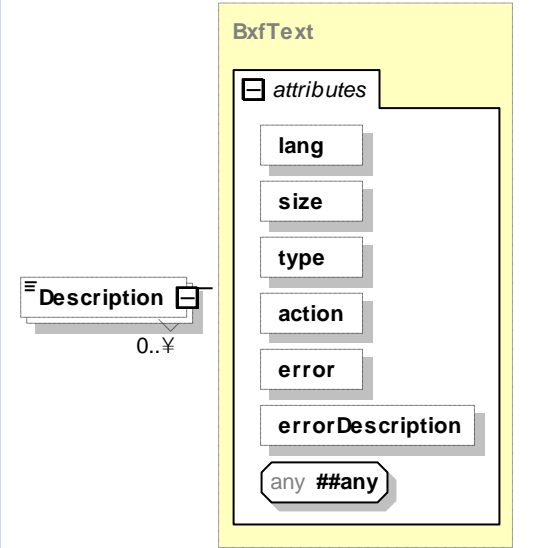
#### element **AlternateAudioContent/Name**

diagram						
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>					
type	<a href="#">BxfText</a>					
properties	isRef minOcc maxOcc content	0 0 unbounded complex				
attributes	Name <a href="#">lang</a> <a href="#">size</a> <a href="#">type</a> <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:languageType</a> <a href="#">xs:positiveInteger</a> <a href="#">xs:string</a> <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use   optional optional optional	Default	Fixed	annotation
source	<xs:element name="Name" type="BxfText" minOccurs="0" maxOccurs="unbounded"/>					

element **AlternateAudioContent/Genre**

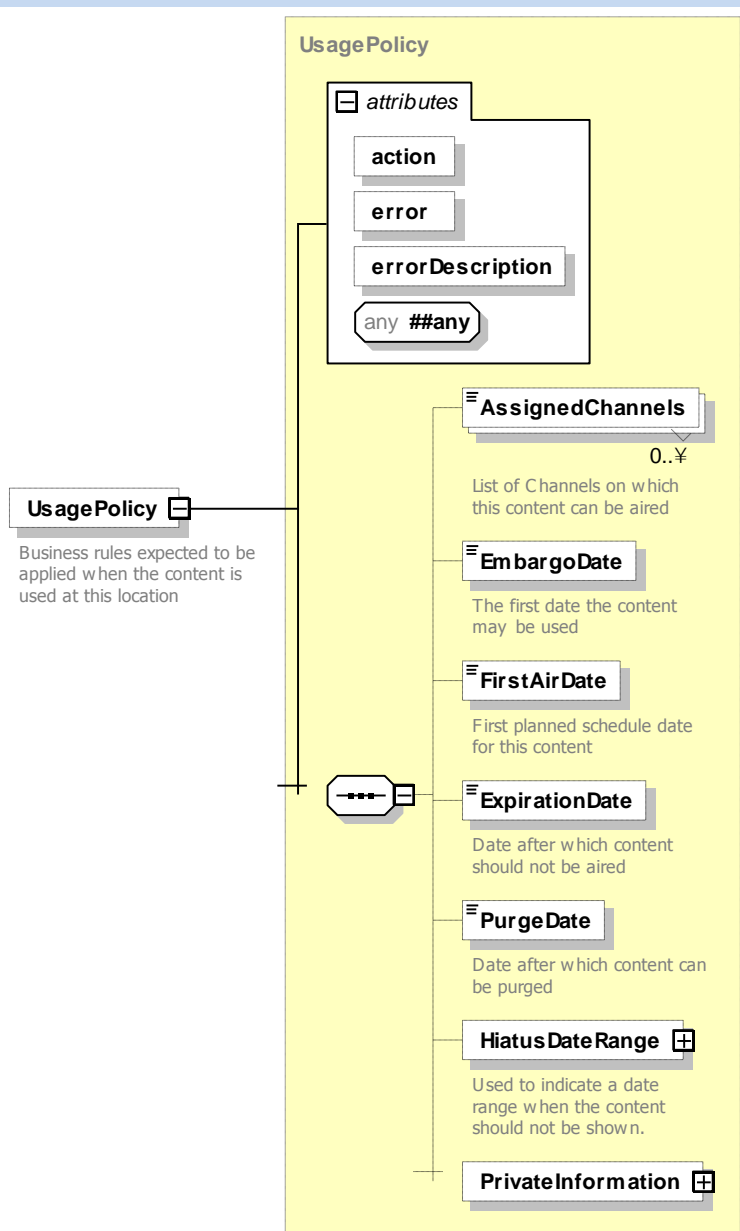
diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
source	<xs:element name="Genre" type="BxfText" minOccurs="0" maxOccurs="unbounded"/>					

element **AlternateAudioContent/Description**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="Description" type="BxfText" minOccurs="0" maxOccurs="unbounded"/>					

# element **AlternateAudioContent/UsagePolicy**

diagram

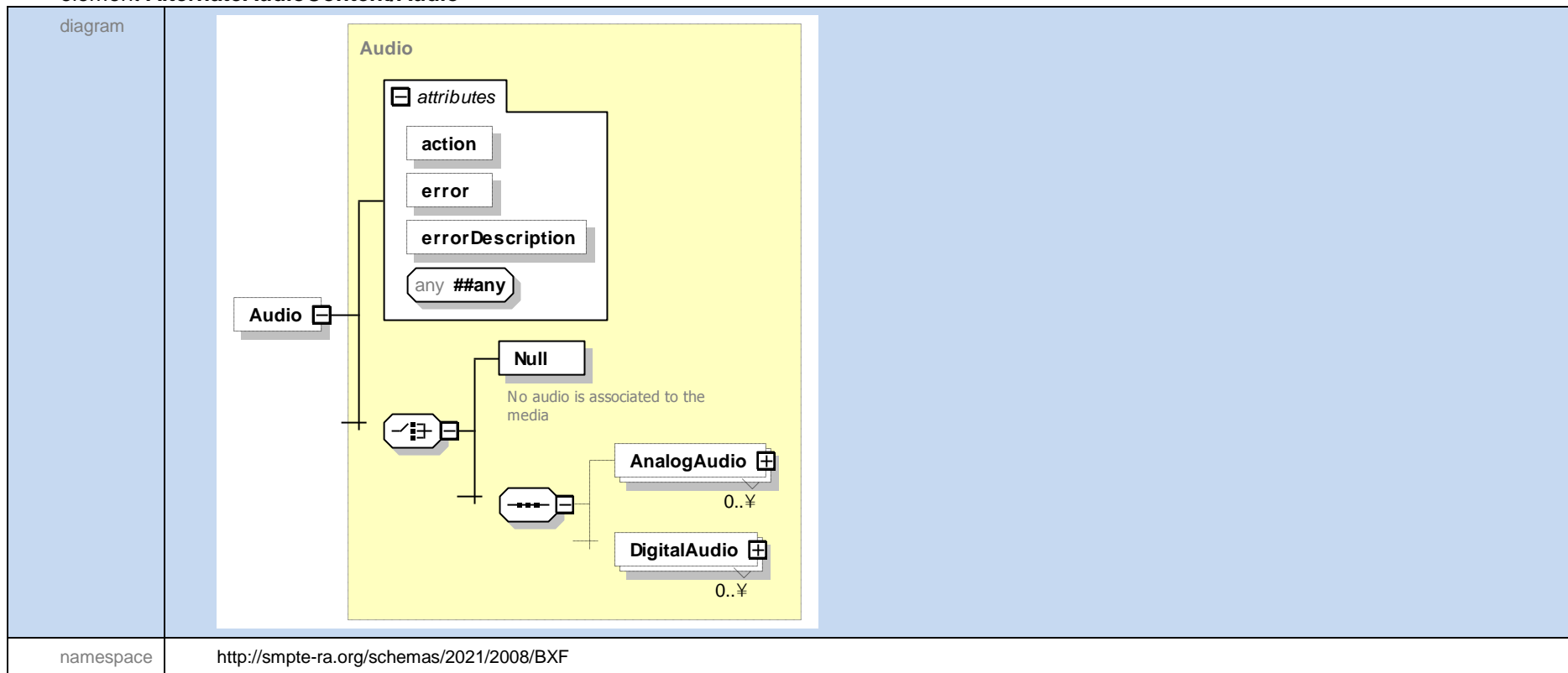


namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

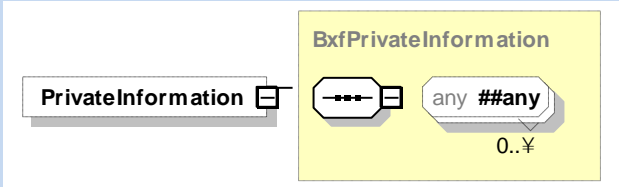
type	<a href="#">UsagePolicy</a>				
properties	isRef	0			
	minOcc	0			
	maxOcc	1			
	content	complex			
children	<a href="#">AssignedChannels</a> <a href="#">EmbargoDate</a> <a href="#">FirstAirDate</a> <a href="#">ExpirationDate</a> <a href="#">PurgeDate</a> <a href="#">HiatusDateRange</a> <a href="#">PrivateInformation</a>				
attributes	Name	Type	Use	Default	Fixed
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional		annotation
	<a href="#">error</a>	<a href="#">BxfError</a>	optional		
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional		
annotation	documentation Business rules expected to be applied when the content is used at this location				
source	<pre>&lt;xs:element name="UsagePolicy" type="UsagePolicy" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Business rules expected to be applied when the content is used at this location&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>				

#### element **AlternateAudioContent/Audio**



type	<a href="#">Audio</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
children	<a href="#">Null</a> <a href="#">AnalogAudio</a> <a href="#">DigitalAudio</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<xs:element name="Audio" type="Audio" minOccurs="0"/>					

#### element [AlternateAudioContent/PrivateInformation](#)

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	<div><div>isRef</div><div>0</div></div> <div><div>minOcc</div><div>0</div></div> <div><div>maxOcc</div><div>1</div></div> <div><div>content</div><div>complex</div></div>
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

# complexType AnalogAudio

diagram

## AnalogAudio

Enumerates the settings of audio included in analog content

### attributes

#### audioReference

Used to reference specific channel or channels for transitions

#### audioType

Mono or stereo left or right

#### audioLevel

Reference level in dbu

#### audioChannel

(1,2,3,4...)

#### lang

#### secondaryAudioProgram

Flags if the analog audio channel is used as an SAP source

#### sapMode

Used in older analog configurations to indicate when the SAP channel is active

### grp Action-ErrorGroup

#### action

#### error

#### errorDescription

#### any ##any

Used to set an action or report an error and add attribute extensibility

namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>





	<pre> &lt;xs:attribute name="lang" type="xs:language" use="optional"/&gt; &lt;xs:attribute name="secondaryAudioProgram" type="xs:boolean" default="false"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Flags if the analog audio channel is used as an SAP source&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="sapMode" default="Active"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used in older analog configurations to indicate when the SAP channel is active&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Active"/&gt;       &lt;xs:enumeration value="Silent"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	---

#### attribute AnalogAudio/@audioReference

type	<b>xs:positiveInteger</b>
properties	isRef 0
annotation	documentation Used to reference specific channel or channels for transitions
source	<pre> &lt;xs:attribute name="audioReference" type="xs:positiveInteger"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to reference specific channel or channels for transitions&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute AnalogAudio/@audioType

type	restriction of <b>xs:string</b>
properties	isRef 0
facets	enumeration Mono enumeration Stereo-Left enumeration Stereo-Right
annotation	documentation Mono or stereo left or right
source	<pre> &lt;xs:attribute name="audioType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Mono or stereo left or right&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Mono"/&gt;       &lt;xs:enumeration value="Stereo-Left"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

	<pre> &lt;xs:enumeration value="Stereo-Right"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>
--	--

#### attribute AnalogAudio/@audioLevel

type	<b>xs:integer</b>
properties	isRef 0
annotation	documentation Reference level in dbu
source	<pre> &lt;xs:attribute name="audioLevel" type="xs:integer"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;Reference level in dbu&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute AnalogAudio/@audioChannel

type	<b>xs:positiveInteger</b>
properties	isRef 0
annotation	documentation (1,2,3,4...)
source	<pre> &lt;xs:attribute name="audioChannel" type="xs:positiveInteger"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;(1,2,3,4...)&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute AnalogAudio/@lang

type	<b>xs:language</b>
properties	isRef 0 use optional
source	<pre> &lt;xs:attribute name="lang" type="xs:language" use="optional"/&gt; </pre>

#### attribute AnalogAudio/@secondaryAudioProgram

type	<b>xs:boolean</b>
properties	isRef 0 default false
annotation	documentation Flags if the analog audio channel is used as an SAP source
source	<pre> &lt;xs:attribute name="secondaryAudioProgram" type="xs:boolean" default="false"&gt; &lt;xs:annotation&gt; </pre>

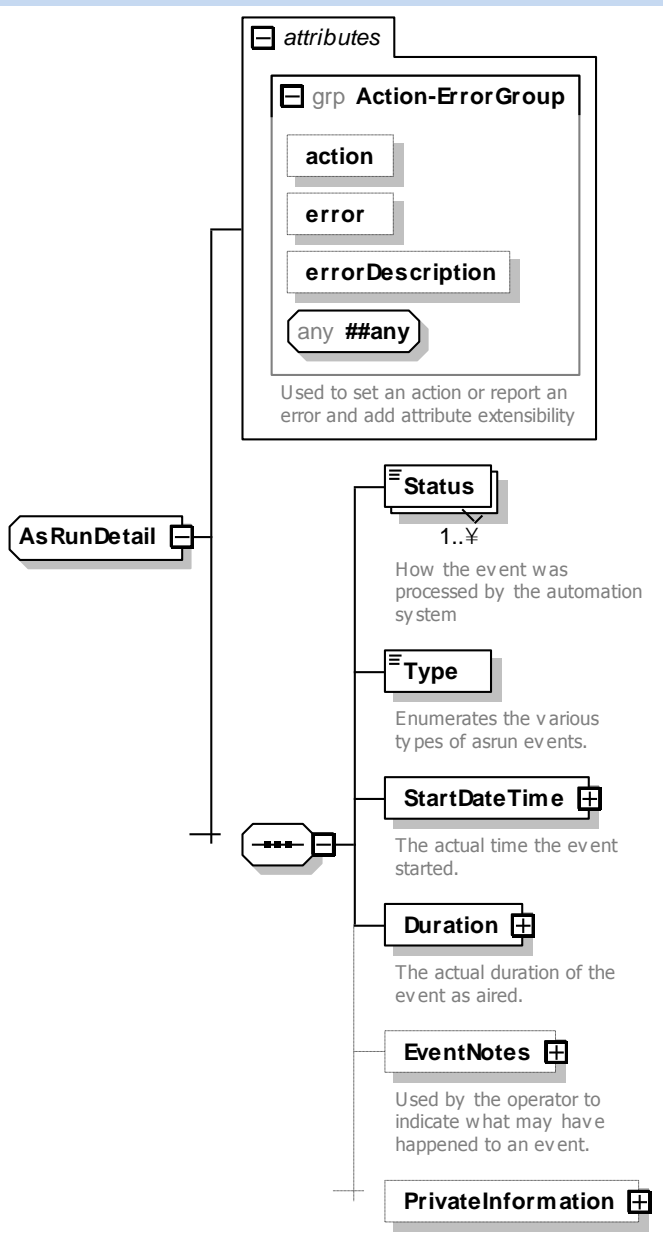
	<code>&lt;xs:documentation&gt;Flags if the analog audio channel is used as an SAP source&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>
--	---

attribute **AnalogAudio/@sapMode**

type	restriction of <b>xs:string</b>
properties	isRef 0 default Active
facets	enumeration Active enumeration Silent
annotation	documentation Used in older analog configurations to indicate when the SAP channel is active
source	<code>&lt;xs:attribute name="sapMode" default="Active"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;Used in older analog configurations to indicate when the SAP channel is active&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;xs:simpleType&gt;</code> <code>&lt;xs:restriction base="xs:string"&gt;</code> <code>&lt;xs:enumeration value="Active"/&gt;</code> <code>&lt;xs:enumeration value="Silent"/&gt;</code> <code>&lt;/xs:restriction&gt;</code> <code>&lt;/xs:simpleType&gt;</code> <code>&lt;/xs:attribute&gt;</code>

# complexType AsRunDetail

diagram

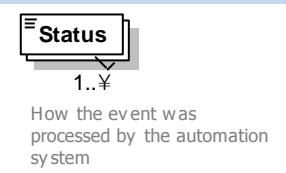


namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

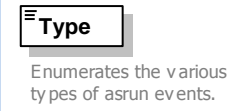
children	<a href="#">Status</a> <a href="#">Type</a> <a href="#">StartDateTime</a> <a href="#">Duration</a> <a href="#">EventNotes</a> <a href="#">PrivateInformation</a>					
used by	elements	<a href="#">BasicAsRun/AsRunDetail</a> <a href="#">CompleteAsRun/AsRunDetail</a>				
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<pre> &lt;xs:complexType name="AsRunDetail"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Status" type="AsRunStatusType" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;How the event was processed by the automation system&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Type" type="ScheduleEventType"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Enumerates the various types of asrun events.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="StartDateTime" type="BxfDateTime"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The actual time the event started.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Duration" type="BxfDuration"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The actual duration of the event as aired.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="EventNotes" type="EventNotes" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Used by the operator to indicate what may have happened to an event.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>					

#### element **AsRunDetail/Status**

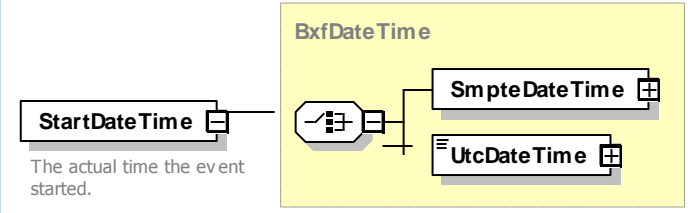
diagram						
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>					
type	<a href="#">AsRunStatusType</a>					

properties	isRef 0 minOcc 1 maxOcc unbounded content simple
facets	enumeration Aired Without Discrepancy enumeration Technical Difficulty enumeration Did not air enumeration Aired with Duration Discrepancy enumeration Aired with Content Discrepancy enumeration Preempted enumeration Joined in Progress enumeration Inserted by Operator enumeration Unknown enumeration Missing Content
annotation	documentation How the event was processed by the automation system
source	<xs:element name="Status" type="AsRunStatusType" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>How the event was processed by the automation system</xs:documentation> </xs:annotation> </xs:element>

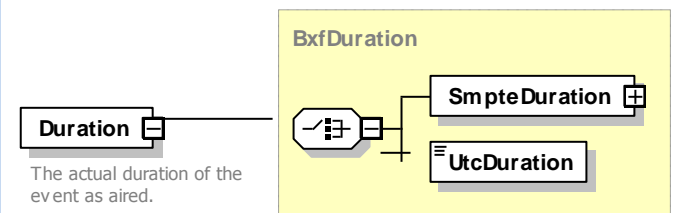
#### element AsRunDetail/Type

diagram	
namespace	http://smppte-ra.org/schemas/2021/2008/BXF
type	<a href="#">ScheduleEventType</a>
properties	isRef 0 content simple
facets	enumeration Primary enumeration NonPrimary enumeration Auxillary enumeration Comment enumeration ProgramHeader enumeration BreakHeader enumeration Macro enumeration Data
annotation	documentation Enumerates the various types of asrun events.
source	<xs:element name="Type" type="ScheduleEventType"> <xs:annotation> <xs:documentation>Enumerates the various types of asrun events.</xs:documentation> </xs:annotation> </xs:element>

## element AsRunDetail/StartTime

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfDateTime</a>
properties	isRef 0 content complex
children	<a href="#">SmpteDateTime</a> <a href="#">UtcDateTime</a>
annotation	documentation The actual time the event started.
source	<pre> &lt;xs:element name="StartTime" type="BxfDateTime"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The actual time the event started.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## element AsRunDetail/Duration

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfDuration</a>
properties	isRef 0 content complex
children	<a href="#">SmpteDuration</a> <a href="#">UtcDuration</a>
annotation	documentation The actual duration of the event as aired.
source	<pre> &lt;xs:element name="Duration" type="BxfDuration"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The actual duration of the event as aired.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>



## element AsRunDetail/EventNotes

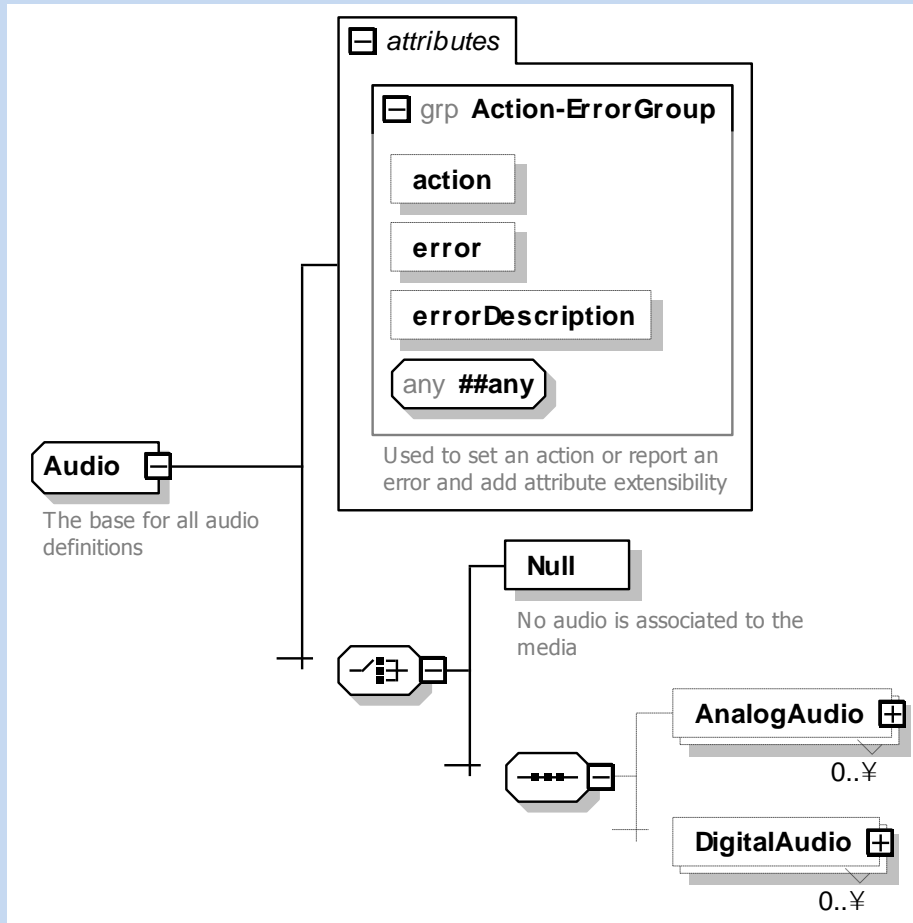
diagram									
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>								
type	<a href="#">EventNotes</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
children	<a href="#">EventNote</a>								
annotation	<p>documentation</p> <p>Used by the operator to indicate what may have happened to an event.</p>								
source	<pre> &lt;xs:element name="EventNotes" type="EventNotes" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used by the operator to indicate what may have happened to an event.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

## element AsRunDetail/PrivateInformation

diagram									
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>								
type	<a href="#">BxfPrivateInformation</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
source	<pre> &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; </pre>								

## complexType Audio


diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
children	<a href="#">Null</a> <a href="#">AnalogAudio</a> <a href="#">DigitalAudio</a>					
used by	elements <a href="#">AlternateAudioContent/Audio</a> <a href="#">BaseMedia/BaseBand/Audio</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation The base for all audio definitions					
source	<pre>&lt;xs:complexType name="Audio"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The base for all audio definitions&lt;/xs:documentation&gt;</pre>					

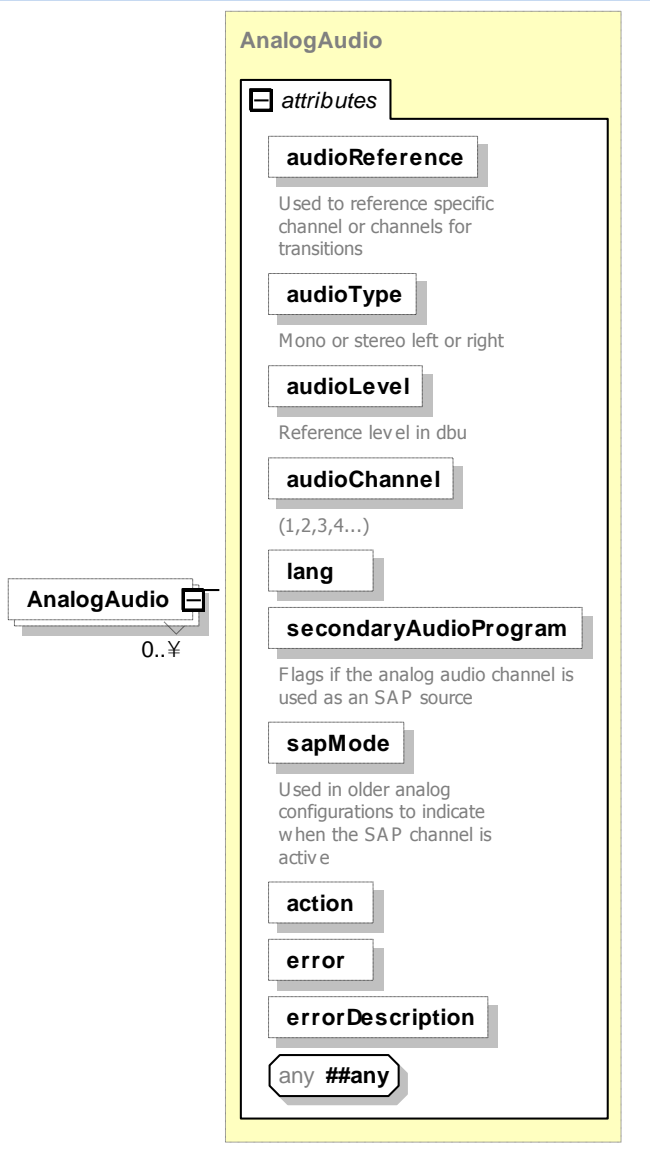
	<pre>&lt;/xs:annotation&gt; &lt;xs:choice&gt;   &lt;xs:element name="Null"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;No audio is associated to the media&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;     &lt;xs:complexType/&gt;   &lt;/xs:element&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="AnalogAudio" type="AnalogAudio" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xs:element name="DigitalAudio" type="DigitalAudio" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;/xs:sequence&gt; &lt;/xs:choice&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt;</pre>
--	---

element **Audio/Null**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 content complex
annotation	documentation No audio is associated to the media
source	<pre>&lt;xs:element name="Null"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;No audio is associated to the media&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType/&gt; &lt;/xs:element&gt;</pre>

# element **Audio/AnalogAudio**

diagram

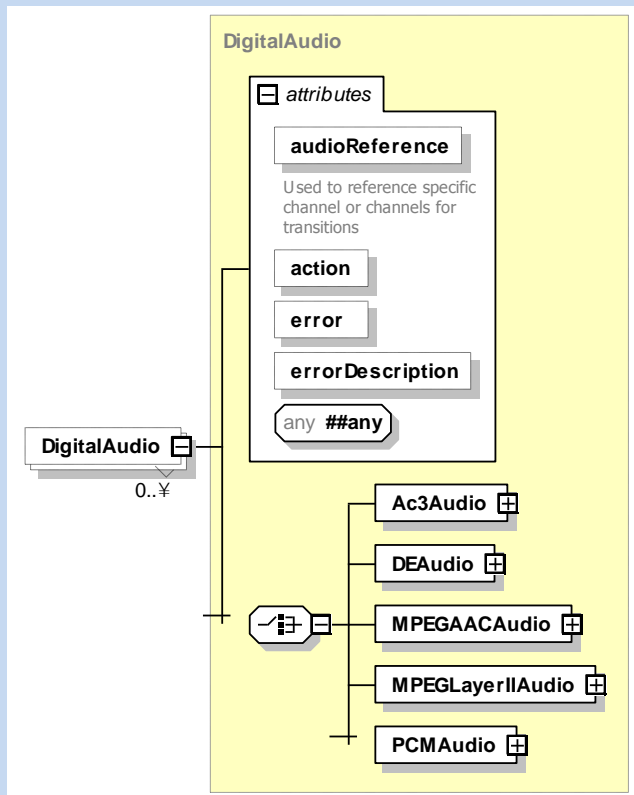


namespace	http://smpte-ra.org/schemas/2021/2008/BXF	
type	<a href="#">AnalogAudio</a>	
properties	isRef	0
	minOcc	0

	maxOcc content	unbounded complex					
attributes	Name <a href="#">audioReference</a>  <a href="#">audioType</a> <a href="#">audioLevel</a> <a href="#">audioChannel</a> <a href="#">lang</a> <a href="#">secondaryAudioProgram</a>  <a href="#">sapMode</a>  <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <b>xs:positiveInteger</b>  <b>derived by:</b> <b>xs:string</b> <b>xs:integer</b>  <b>xs:positiveInteger</b>  <b>xs:language</b> <b>xs:boolean</b>  <b>derived by:</b> <b>xs:string</b>  <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use          optional       optional optional optional	Default          false       Active	Fixed          	annotation documentation Used to reference specific channel or channels for transitions documentation Mono or stereo left or right documentation Reference level in dbu documentation (1,2,3,4...)  documentation Flags if the analog audio channel is used as an SAP source documentation Used in older analog configurations to indicate when the SAP channel is active	
source	<xs:element name="AnalogAudio" type="AnalogAudio" minOccurs="0" maxOccurs="unbounded"/>						

# element **Audio/DigitalAudio**

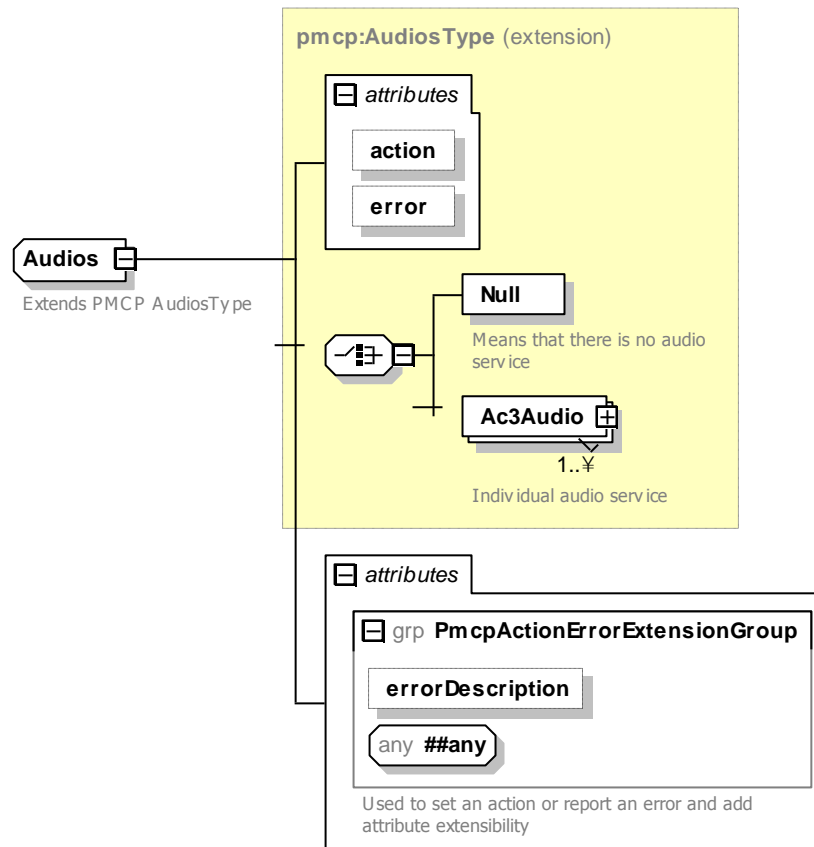
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">DigitalAudio</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
children	<a href="#">Ac3Audio</a> <a href="#">DEAudio</a> <a href="#">MPEGAACAudio</a> <a href="#">MPEGLayerIIAudio</a> <a href="#">PCMAudio</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">audioReference</a>	<b>xs:positiveInteger</b>				documentation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			Used to reference specific channel or channels for transitions
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
<a href="#">errorDescription</a>	<b>xs:string</b>	optional				
source	<xs:element name="DigitalAudio" type="DigitalAudio" minOccurs="0" maxOccurs="unbounded"/>					

## complexType Audios

diagram



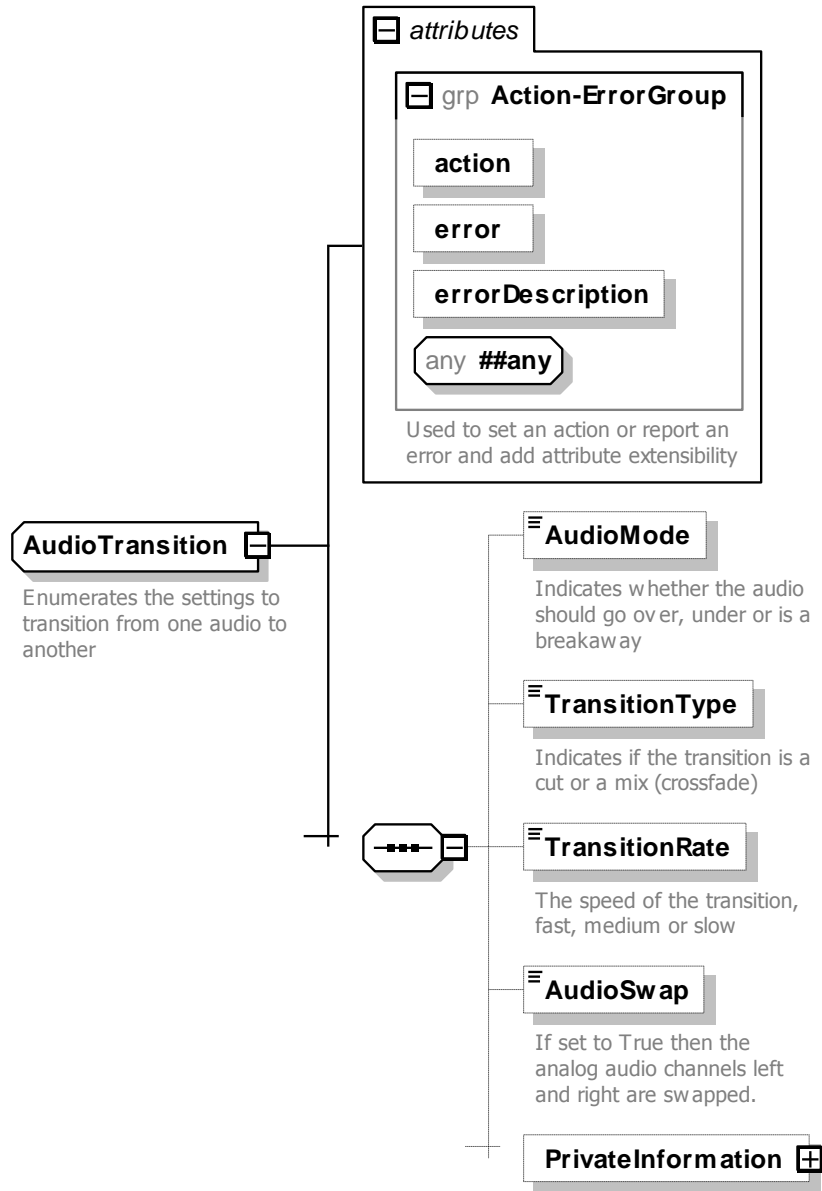
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	extension of <a href="#">pmcp:AudioType</a>					
properties	base pmcp:AudioType					
children	<a href="#">Null</a> <a href="#">Ac3Audio</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">pmcp:errorType</a> <a href="#">xs:string</a>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Extends PMCP AudioType					
source	<pre>&lt;xs:complexType name="Audios"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Extends PMCP AudioType&lt;/xs:documentation&gt;</pre>					

	<pre>&lt;/xs:annotation&gt; &lt;xs:complexContent&gt;   &lt;xs:extension base="pmcp:AudiosType"&gt;     &lt;xs:attributeGroup ref="PmcpActionErrorExtensionGroup"/&gt;   &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>
--	---



# complexType AudioTransition

diagram

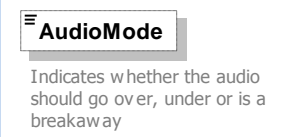


namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [AudioMode](#) [TransitionType](#) [TransitionRate](#) [AudioSwap](#) [PrivateInformation](#)

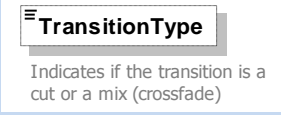
used by	element <a href="#">EventData/Transitions/AudioTransitions</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Enumerates the settings to transition from one audio to another					
source	<pre> &lt;xs:complexType name="AudioTransition"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumerates the settings to transition from one audio to another&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;!-- &lt;xs:element name="AudioContentId" type="ContentIdType" minOccurs="0" /&gt; --&gt;     &lt;xs:element name="AudioMode" type="AudioModeType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Indicates whether the audio should go over, under or is a breakaway &lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="TransitionType" type="AudioTransitionEnumType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Indicates if the transition is a cut or a mix (crossfade)&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="TransitionRate" type="AudioRateType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The speed of the transition, fast, medium or slow&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="AudioSwap" type="xs:boolean" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;If set to True then the analog audio channels left and right are swapped.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>					

#### element **AudioTransition/AudioMode**

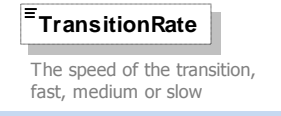
diagram						
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>					
type	<a href="#">AudioModeType</a>					
properties	isRef	0	minOcc	0	maxOcc	1

	content simple
facets	enumeration Breakaway enumeration Over enumeration Under
annotation	documentation Indicates whether the audio should go over, under or is a breakaway
source	<pre>&lt;xs:element name="AudioMode" type="AudioModeType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates whether the audio should go over, under or is a breakaway &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### element **AudioTransition/TransitionType**

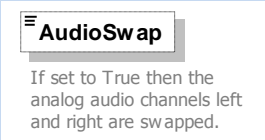
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">AudioTransitionEnumType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration Cut enumeration Mix
annotation	documentation Indicates if the transition is a cut or a mix (crossfade)
source	<pre>&lt;xs:element name="TransitionType" type="AudioTransitionEnumType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates if the transition is a cut or a mix (crossfade)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### element **AudioTransition/TransitionRate**

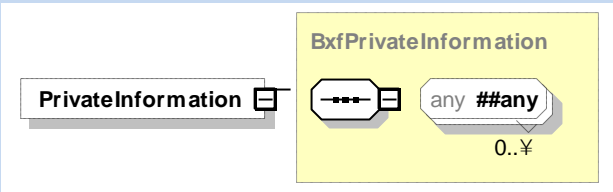
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">AudioRateType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple

facets	enumeration      Fast enumeration      Medium enumeration      Slow
annotation	documentation The speed of the transition, fast, medium or slow
source	<pre>&lt;xs:element name="TransitionRate" type="AudioRateType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The speed of the transition, fast, medium or slow&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### element AudioTransition/AudioSwap

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:boolean</b>
properties	isRef      0 minOcc      0 maxOcc      1 content      simple
annotation	documentation If set to True then the analog audio channels left and right are swapped.
source	<pre>&lt;xs:element name="AudioSwap" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If set to True then the analog audio channels left and right are swapped.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

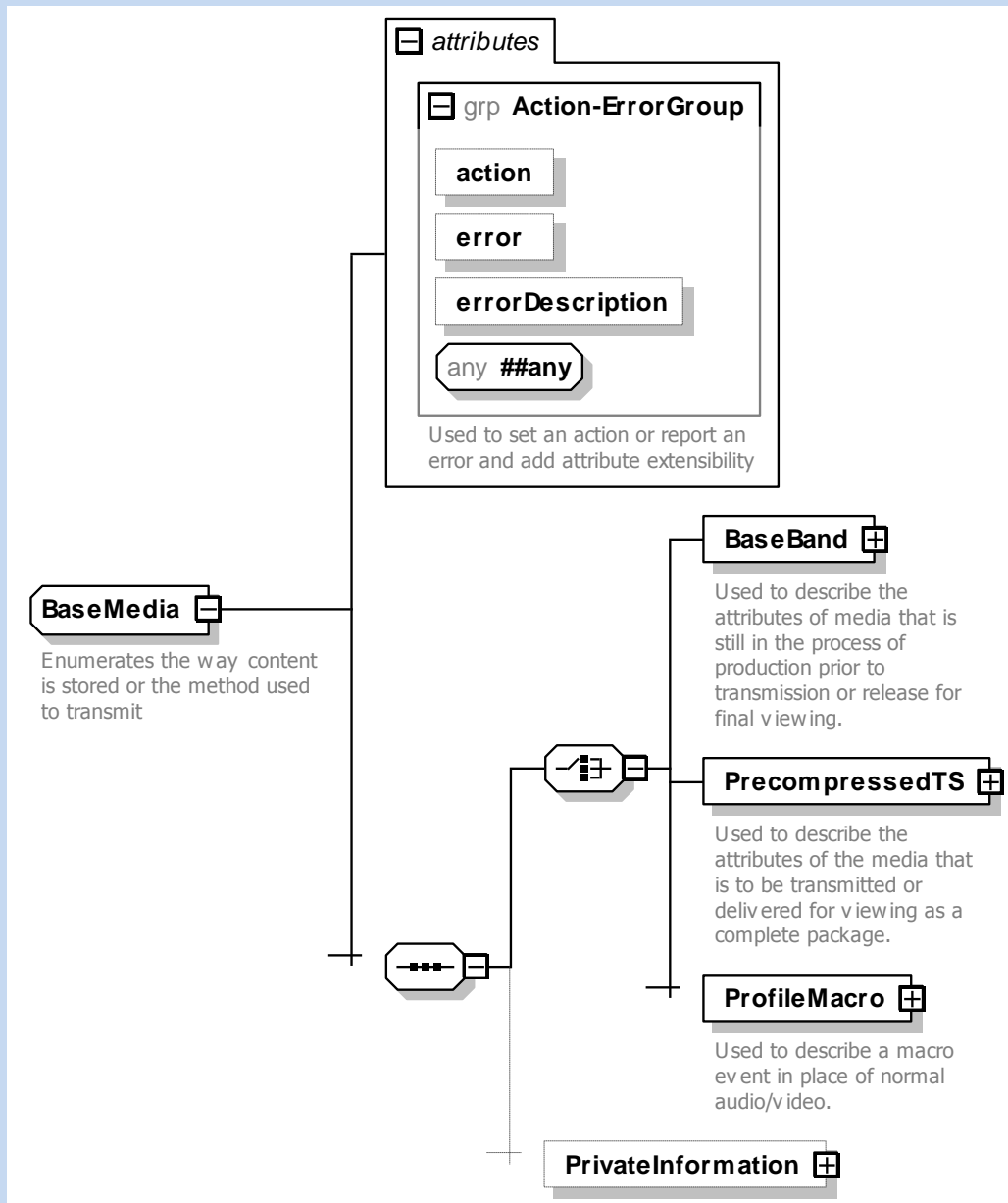
### element AudioTransition/PrivateInformation

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	isRef      0 minOcc      0 maxOcc      1

	content complex
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

# complexType BaseMedia

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [BaseBand](#) [PrecompressedTS](#) [ProfileMacro](#) [PrivateInformation](#)

used by	element complexType	<a href="#">ScheduledEvent/TransformationOutput Media</a>				
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Enumerates the way content is stored or the method used to transmit					
source	<pre> &lt;xs:complexType name="BaseMedia"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumerates the way content is stored or the method used to transmit&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:choice&gt;       &lt;xs:element name="BaseBand"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Used to describe the attributes of media that is still in the process of production prior to transmission or release for final viewing.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;             &lt;xs:element name="Audio" type="Audio" minOccurs="0"/&gt;             &lt;xs:element name="Video" type="Video" minOccurs="0"/&gt;             &lt;xs:element name="Captions" type="BxfCaptions" minOccurs="0"/&gt;             &lt;xs:element name="VerticalIntervalData" type="VerticalIntervalData" minOccurs="0"/&gt;           &lt;/xs:sequence&gt;           &lt;xs:attribute name="compressionBitRate" type="xs:decimal"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;megabits per second&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:attribute&gt;         &lt;/xs:complexType&gt;       &lt;/xs:element&gt;       &lt;xs:element name="PrecompressedTS"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Used to describe the attributes of the media that is to be transmitted or delivered for viewing as a complete package.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;             &lt;xs:element name="TSAudio" type="TSAudio" minOccurs="0"/&gt;             &lt;xs:element name="TSVideo" type="TSVideo" minOccurs="0"/&gt;             &lt;xs:element name="TSCaptioning" type="xs:boolean" minOccurs="0"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;If true indicates that CEA-708-C captioning is present.&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:element&gt;             &lt;xs:element name="TSData" minOccurs="0"&gt;               &lt;xs:complexType&gt;                 &lt;xs:choice&gt;                   &lt;xs:element name="Null"/&gt;                   &lt;xs:element name="SeparatePID"&gt;                     &lt;xs:complexType&gt;                       &lt;xs:sequence&gt;                         &lt;xs:element name="DataPIDValue" type="xs:integer"/&gt;                         &lt;xs:element name="DataEncapsulation"&gt; </pre>					

```

<xs:simpleType>
  <xs:restriction base="xs:string">
    <xs:enumeration value="ETSIpamsampling"/>
    <xs:enumeration value="ETSIteletext"/>
    <xs:enumeration value="ETSIvps"/>
    <xs:enumeration value="ETSIwss"/>
    <xs:enumeration value="SCTEamol"/>
    <xs:enumeration value="SCTEtvguide"/>
    <xs:enumeration value="SCTEvitc"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="DataContent" type="DataContent"/>
</xs:choice>
</xs:complexType>
</xs:element>
</xs:sequence>
<xs:attribute name="compressionBitRate" type="xs:decimal">
  <xs:annotation>
    <xs:documentation>megabits per second</xs:documentation>
  </xs:annotation>
</xs:attribute>
</xs:complexType>
</xs:element>
<xs:element name="ProfileMacro" type="Macro">
  <xs:annotation>
    <xs:documentation>Used to describe a macro event in place of normal audio/video.</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:choice>
<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
</xs:sequence>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>

```



## element BaseMedia/BaseBand

diagram													
namespace	http://smpte-ra.org/schemas/2021/2008/BXF												
properties	isRef 0 content complex												
children	<a href="#">Audio</a> <a href="#">Video</a> <a href="#">Captions</a> <a href="#">VerticalIntervalData</a>												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>annotation</th></tr></thead><tbody><tr><td><a href="#">compressionBitRate</a></td><td>xs:decimal</td><td></td><td></td><td></td><td>documentation megabits per second</td></tr></tbody></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">compressionBitRate</a>	xs:decimal				documentation megabits per second
Name	Type	Use	Default	Fixed	annotation								
<a href="#">compressionBitRate</a>	xs:decimal				documentation megabits per second								
annotation	documentation Used to describe the attributes of media that is still in the process of production prior to transmission or release for final viewing.												
source	<pre>&lt;xs:element name="BaseBand"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to describe the attributes of media that is still in the process of production prior to transmission or release for final viewing.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Audio" type="Audio" minOccurs="0"/&gt;       &lt;xs:element name="Video" type="Video" minOccurs="0"/&gt;       &lt;xs:element name="Captions" type="BxfCaptions" minOccurs="0"/&gt;       &lt;xs:element name="VerticalIntervalData" type="VerticalIntervalData" minOccurs="0"/&gt;     &lt;/xs:sequence&gt;     &lt;xs:attribute name="compressionBitRate" type="xs:decimal"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;megabits per second&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:attribute&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>												

## attribute BaseMedia/BaseBand/@compressionBitRate

type	xs:decimal
------	------------

properties	isRef0
annotation	documentation megabits per second
source	<xs:attribute name="compressionBitRate" type="xs:decimal"> <xs:annotation> <xs:documentation>megabits per second</xs:documentation> </xs:annotation> </xs:attribute>

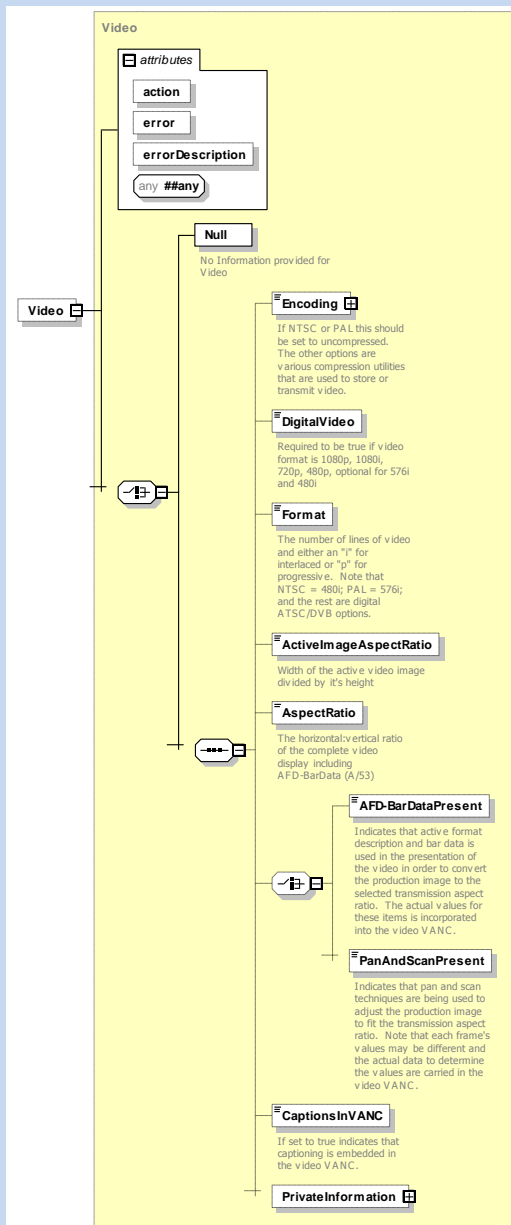
element BaseMedia/BaseBand/Audio

diagram	<p>The diagram illustrates the structure of the <b>Audio</b> element. It is a container element with a box icon. Inside, there is an <b>attributes</b> container (also with a box icon) which holds four elements: <b>action</b>, <b>error</b>, <b>errorDescription</b>, and <b>any ##any</b> (represented by an octagon with a plus sign). Below the <b>attributes</b> container, there is a choice structure. The first branch is a <b>Null</b> element (rectangle) with the text "No audio is associated to the media" below it. The second branch is an octagon with a plus sign, which contains a choice between <b>AnalogAudio</b> and <b>DigitalAudio</b>. Both <b>AnalogAudio</b> and <b>DigitalAudio</b> are rectangle elements with a plus sign icon, and each has a cardinality of "0..∞" (represented by a vertical line and an infinity symbol) next to it.</p>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">Audio</a>
properties	isRef0 minOcc0

	maxOcc 1 content complex				
children	<a href="#">Null</a> <a href="#">AnalogAudio</a> <a href="#">DigitalAudio</a>				
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed    annotation
source	<xs:element name="Audio" type="Audio" minOccurs="0"/>				

# element BaseMedia/BaseBand/Video

diagram

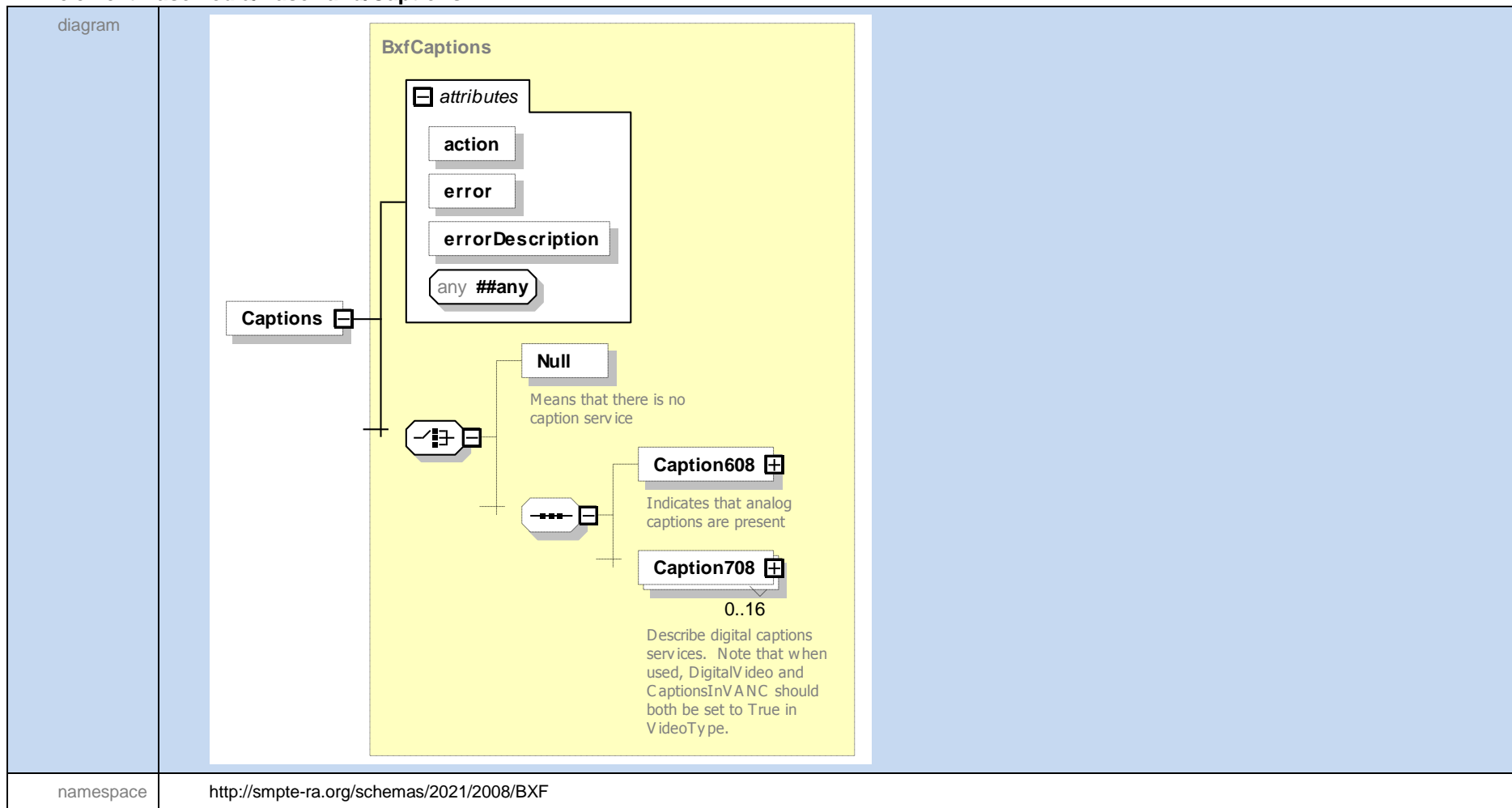


namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [Video](#)

properties	isRef minOcc maxOcc content	0 0 1 complex				
children	<a href="#">Null</a> <a href="#">Encoding</a> <a href="#">DigitalVideo</a> <a href="#">Format</a> <a href="#">ActiveImageAspectRatio</a> <a href="#">AspectRatio</a> <a href="#">AFD-BarDataPresent</a> <a href="#">PanAndScanPresent</a> <a href="#">CaptionsInVANC</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="Video" type="Video" minOccurs="0"/>					

### element **BaseMedia/BaseBand/Captions**



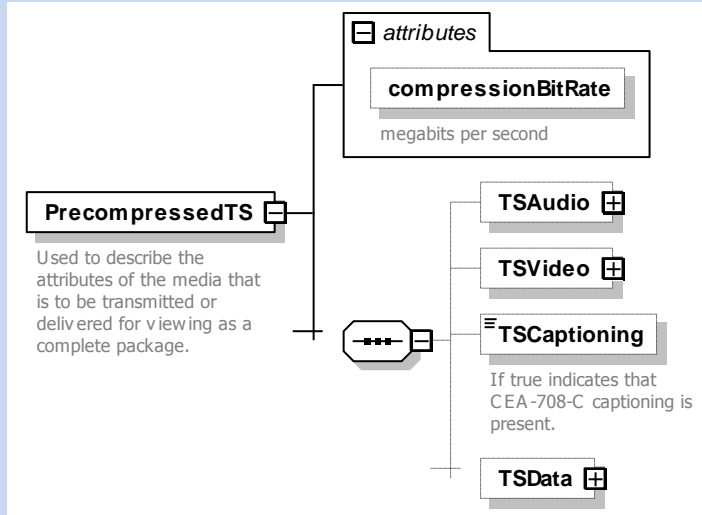
type	<a href="#">BxfCaptions</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
children	<a href="#">Null</a> <a href="#">Caption608</a> <a href="#">Caption708</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<xs:element name="Captions" type="BxfCaptions" minOccurs="0"/>					

element [BaseMedia/BaseBand/VerticalIntervalData](#)

diagram	<div><div>VerticalIntervalData</div><div><div>VerticalIntervalData</div><div><div>VBIData</div><div>VANCDData</div><div>See SMPTE 291M for appropriate values for attributes.</div></div></div></div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">VerticalIntervalData</a>
properties	<div><div>isRef</div><div>0</div><div>minOcc</div><div>0</div><div>maxOcc</div><div>1</div><div>content</div><div>complex</div></div>
children	<a href="#">VBIData</a> <a href="#">VANCDData</a>
source	<xs:element name="VerticalIntervalData" type="VerticalIntervalData" minOccurs="0"/>

## element BaseMedia/PrecompressedTS

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

properties  
isRef 0  
content complex

children [TSAudio](#) [TSVideo](#) [TSCaptioning](#) [TSData](#)

attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">compressionBitRate</a>	xs:decimal				documentation megabits per second

annotation  
documentation  
Used to describe the attributes of the media that is to be transmitted or delivered for viewing as a complete package.

source

```

<xs:element name="PrecompressedTS">
  <xs:annotation>
    <xs:documentation>Used to describe the attributes of the media that is to be transmitted or delivered for viewing as a complete package.</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="TSAudio" type="TSAudio" minOccurs="0"/>
      <xs:element name="TSVideo" type="TSVideo" minOccurs="0"/>
      <xs:element name="TSCaptioning" type="xs:boolean" minOccurs="0">
        <xs:annotation>
          <xs:documentation>If true indicates that CEA-708-C captioning is present.</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="TSData" minOccurs="0">
        <xs:complexType>
          <xs:choice>
            <xs:element name="Null"/>
            <xs:element name="SeparatePID">
              <xs:complexType>
                <xs:sequence>
                  <xs:element name="DataPIDValue" type="xs:integer"/>
                </xs:sequence>
              </xs:complexType>
            </xs:element>
          </xs:choice>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
  
```

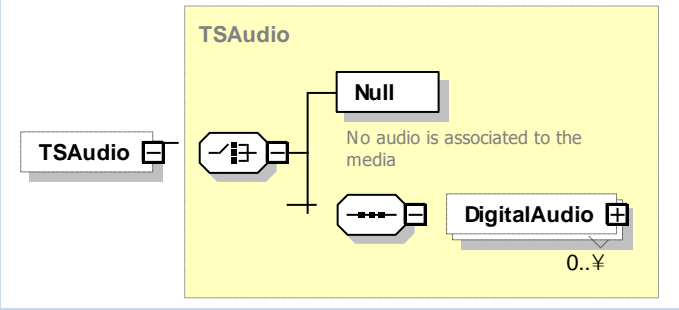
	<pre>&lt;xs:element name="DataEncapsulation"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="ETSIpamsampling"/&gt;       &lt;xs:enumeration value="ETSIteletext"/&gt;       &lt;xs:enumeration value="ETSIvps"/&gt;       &lt;xs:enumeration value="ETSIwss"/&gt;       &lt;xs:enumeration value="SCTEamol"/&gt;       &lt;xs:enumeration value="SCTEtvguide"/&gt;       &lt;xs:enumeration value="SCTEvitc"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element name="DataContent" type="DataContent"/&gt; &lt;/xs:choice&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="compressionBitRate" type="xs:decimal"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;megabits per second&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>
--	--

attribute **BaseMedia/PrecompressedTS/@compressionBitRate**

type	<b>xs:decimal</b>
properties	isRef 0
annotation	documentation megabits per second
source	<pre>&lt;xs:attribute name="compressionBitRate" type="xs:decimal"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;megabits per second&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

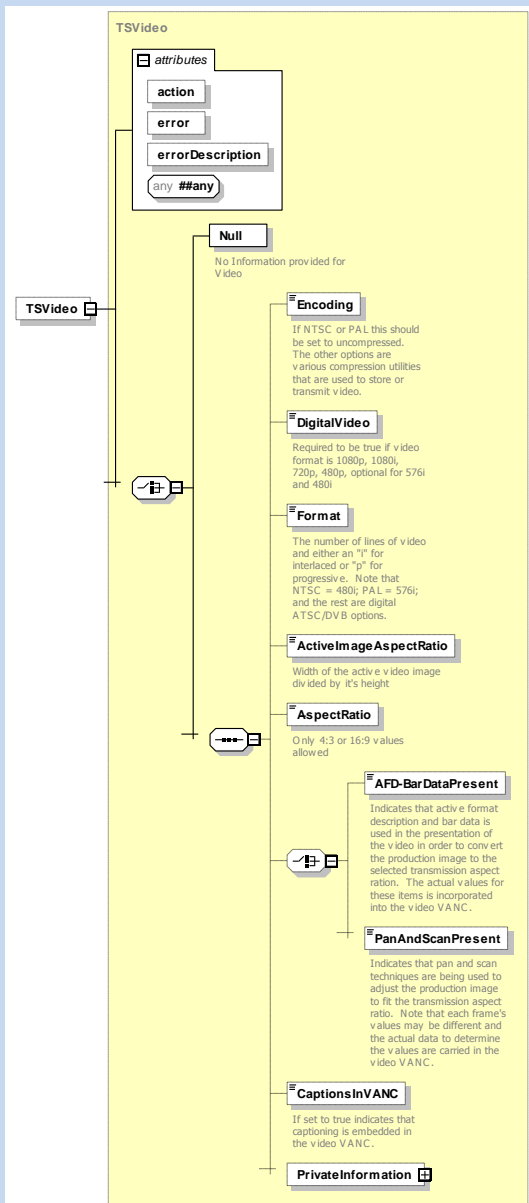


element **BaseMedia/PrecompressedTS/TSAudio**

diagram	 <p>The diagram illustrates the structure of the TSAudio element. It shows a TSAudio container box on the left. Inside this container, there is a switch symbol. The switch has two paths: one leading to a 'Null' box with the text 'No audio is associated to the media' below it, and another leading to a 'DigitalAudio' box. The DigitalAudio box has a '0..∞' cardinality indicator below it.</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">TSAudio</a>								
properties	<table><tr><td>isRef</td><td>0</td></tr><tr><td>minOcc</td><td>0</td></tr><tr><td>maxOcc</td><td>1</td></tr><tr><td>content</td><td>complex</td></tr></table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
children	<a href="#">Null</a> <a href="#">DigitalAudio</a>								
source	<xs:element name="TSAudio" type="TSAudio" minOccurs="0"/>								

# element BaseMedia/PrecompressedTS/TSVideo

diagram



namespace


<http://smppte-ra.org/schemas/2021/2008/BXF>

type

[TSVideo](#)

properties	isRef minOcc maxOcc content	0 0 1 complex
children	<a href="#">Null</a> <a href="#">Encoding</a> <a href="#">DigitalVideo</a> <a href="#">Format</a> <a href="#">ActiveImageAspectRatio</a> <a href="#">AspectRatio</a> <a href="#">AFD-BarDataPresent</a> <a href="#">PanAndScanPresent</a> <a href="#">CaptionsInVANC</a> <a href="#">PrivateInformation</a>	
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type pmcp:actionType <a href="#">BxfError</a> xs:string Use optional optional optional Default Fixed annotation
source	<xs:element name="TSVideo" type="TSVideo" minOccurs="0"/>	

#### element **BaseMedia/PrecompressedTS/TSCaptioning**

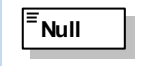
diagram		
namespace	http://smpte-ra.org/schemas/2021/2008/BXF	
type	xs:boolean	
properties	isRef minOcc maxOcc content	0 0 1 simple
annotation	documentation If true indicates that CEA-708-C captioning is present.	
source	<pre>&lt;xs:element name="TSCaptioning" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If true indicates that CEA-708-C captioning is present.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>	

#### element **BaseMedia/PrecompressedTS/TSData**

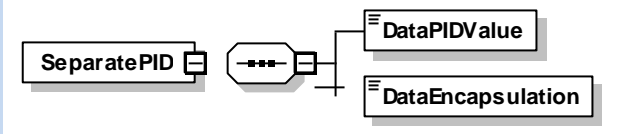
diagram		
namespace	http://smpte-ra.org/schemas/2021/2008/BXF	
properties	isRef minOcc maxOcc content	0 0 1 complex

children	<a href="#">Null</a> <a href="#">SeparatePID</a> <a href="#">DataContent</a>
source	<pre> &lt;xs:element name="TSData" minOccurs="0"&gt;   &lt;xs:complexType&gt;     &lt;xs:choice&gt;       &lt;xs:element name="Null"/&gt;       &lt;xs:element name="SeparatePID"&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;             &lt;xs:element name="DataPIDValue" type="xs:integer"/&gt;             &lt;xs:element name="DataEncapsulation"&gt;               &lt;xs:simpleType&gt;                 &lt;xs:restriction base="xs:string"&gt;                   &lt;xs:enumeration value="ETSIpamsampling"/&gt;                   &lt;xs:enumeration value="ETSIteletext"/&gt;                   &lt;xs:enumeration value="ETSIvps"/&gt;                   &lt;xs:enumeration value="ETSIwss"/&gt;                   &lt;xs:enumeration value="SCTEamol"/&gt;                   &lt;xs:enumeration value="SCTEtvguide"/&gt;                   &lt;xs:enumeration value="SCTEvitc"/&gt;                 &lt;/xs:restriction&gt;               &lt;/xs:simpleType&gt;             &lt;/xs:element&gt;           &lt;/xs:sequence&gt;         &lt;/xs:complexType&gt;       &lt;/xs:element&gt;     &lt;/xs:choice&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

#### element **BaseMedia/PrecompressedTS/TSData/Null**


diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0
source	<pre>&lt;xs:element name="Null"/&gt;</pre>

#### element **BaseMedia/PrecompressedTS/TSData/SeparatePID**


diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF

properties	isRef content 0 complex
children	<a href="#">DataPIDValue</a> <a href="#">DataEncapsulation</a>
source	<pre> &lt;xs:element name="SeparatePID"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="DataPIDValue" type="xs:integer"/&gt;       &lt;xs:element name="DataEncapsulation"&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:string"&gt;             &lt;xs:enumeration value="ETSIpamsampling"/&gt;             &lt;xs:enumeration value="ETSIteletext"/&gt;             &lt;xs:enumeration value="ETSIvps"/&gt;             &lt;xs:enumeration value="ETSIwss"/&gt;             &lt;xs:enumeration value="SCTEamol"/&gt;             &lt;xs:enumeration value="SCTEtvguide"/&gt;             &lt;xs:enumeration value="SCTEvitc"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

#### element **BaseMedia/PrecompressedTS/TSDATA/SeparatePID/DataPIDValue**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:integer</b>
properties	isRef content 0 simple
source	<pre>&lt;xs:element name="DataPIDValue" type="xs:integer"/&gt;</pre>

#### element **BaseMedia/PrecompressedTS/TSDATA/SeparatePID/DataEncapsulation**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
properties	isRef content 0 simple
facets	enumeration ETSIpamsampling enumeration ETSIteletext enumeration ETSIvps

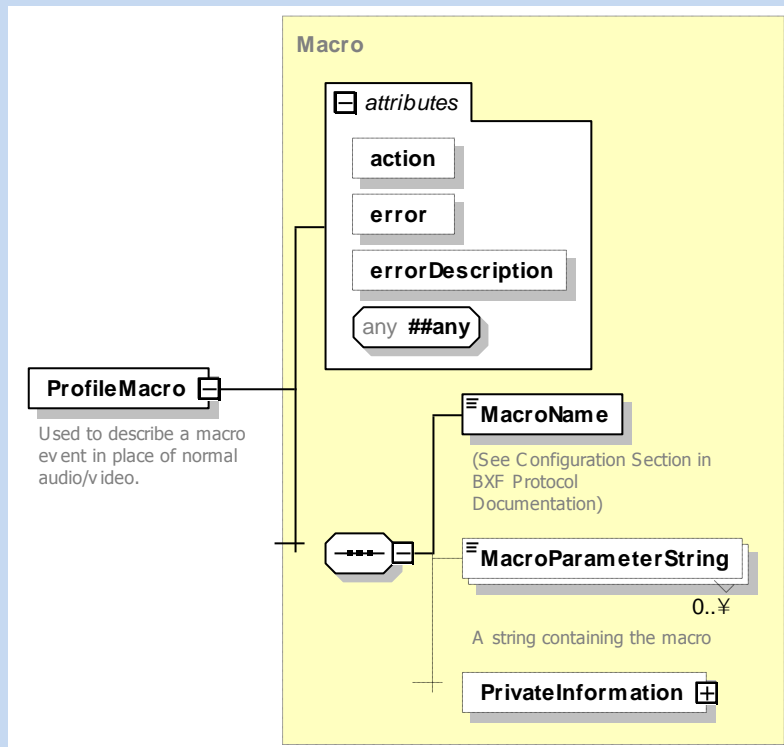
	<div>enumerationETSIwss</div> <div>enumerationSCTEamol</div> <div>enumerationSCTEtvguide</div> <div>enumerationSCTEvitc</div>
source	<pre>&lt;xs:element name="DataEncapsulation"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="ETSIpamsampling"/&gt;       &lt;xs:enumeration value="ETSIteletext"/&gt;       &lt;xs:enumeration value="ETSIvps"/&gt;       &lt;xs:enumeration value="ETSIwss"/&gt;       &lt;xs:enumeration value="SCTEamol"/&gt;       &lt;xs:enumeration value="SCTEtvguide"/&gt;       &lt;xs:enumeration value="SCTEvitc"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt;</pre>

element **BaseMedia/PrecompressedTS/TSDATA/DataContent**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">DataContent</a>
properties	<div>isRef0</div> <div>contentcomplex</div>
children	<a href="#">BitRate</a> <a href="#">FileName</a>
source	<pre>&lt;xs:element name="DataContent" type="DataContent"/&gt;</pre>

## element BaseMedia/ProfileMacro

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">Macro</a>					
properties	isRef	0	content	complex		
children	<a href="#">MacroName</a> <a href="#">MacroParameterString</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation Used to describe a macro event in place of normal audio/video.					
source	<pre>&lt;xs:element name="ProfileMacro" type="Macro"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to describe a macro event in place of normal audio/video.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

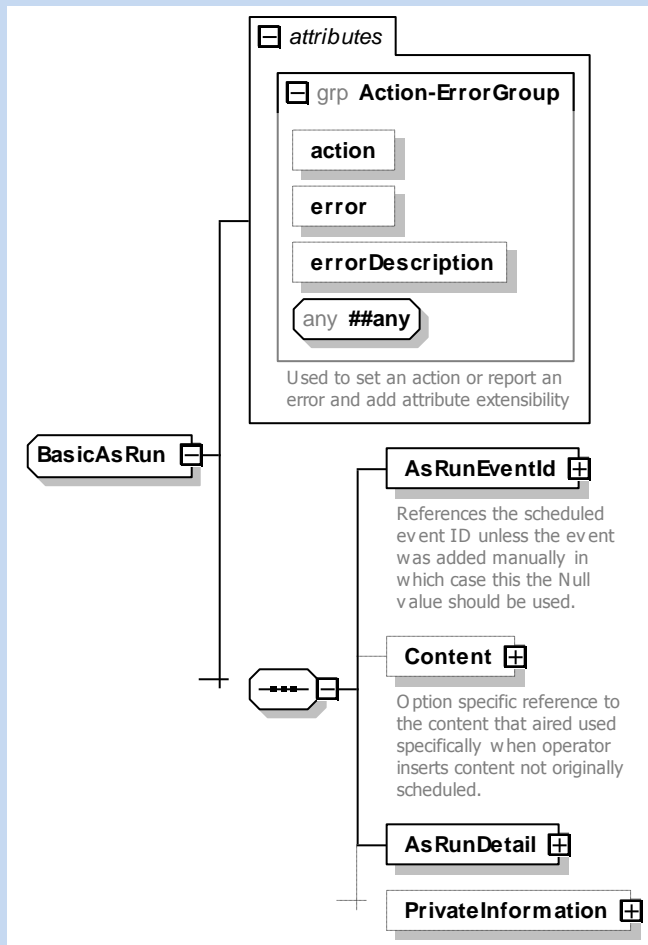
element **BaseMedia/PrivateInformation**

diagram	<p>The diagram shows a class-like box labeled 'PrivateInformation' with a small square icon to its right. A line connects this box to a yellow rectangular area. Inside the yellow area, there is a box labeled 'BxfPrivateInformation'. Below this box, there is a constraint box containing the text 'any ##any' and '0..∞'.</p>		
namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">BxfPrivateInformation</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	complex	
source	<code>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</code>		



# complexType BasicAsRun

diagram



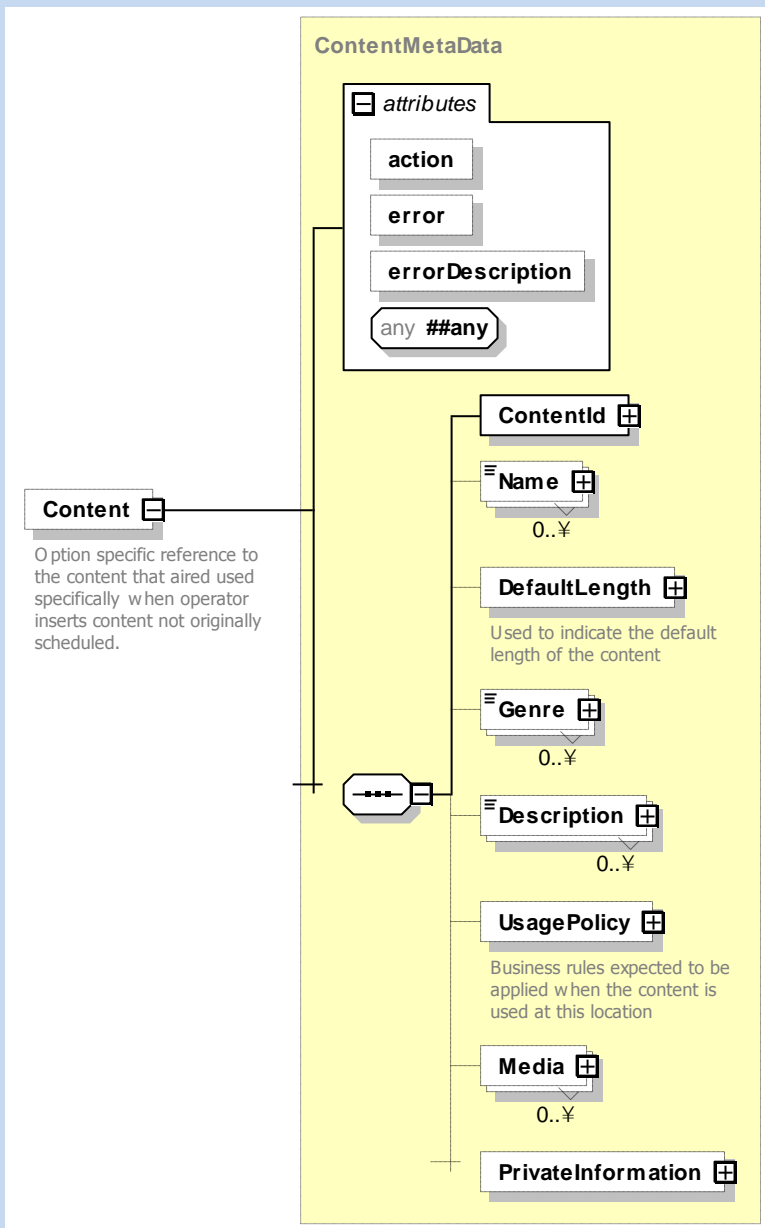
namespace	http://smpte-ra.org/schemas/2021/2008/BXF				
children	<a href="#">AsRunEventId</a> <a href="#">Content</a> <a href="#">AsRunDetail</a> <a href="#">PrivateInformation</a>				
used by	element	<a href="#">Schedule/AsRun/BasicAsRun</a>			
attributes	Name	Type	Use	Default	Fixed
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional		
	<a href="#">error</a>	<a href="#">BxfError</a>	optional		
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional		
source	<pre> &lt;xs:complexType name="BasicAsRun"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="AsRunEventId" type="EventExtId"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;References the scheduled event ID unless the event was added manually in which case this the Null value should be used.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Content" type="ContentExtId"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Option specific reference to the content that aired used specifically when operator inserts content not originally scheduled.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="AsRunDetail" type="AsRunDetailType"/&gt;     &lt;xs:element name="PrivateInformation" type="PrivateInformationType"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attribute name="action" type="pmcp:actionType" use="optional"/&gt;   &lt;xs:attribute name="error" type="BxfError" use="optional"/&gt;   &lt;xs:attribute name="errorDescription" type="xs:string" use="optional"/&gt;   &lt;xs:attribute name="any" type="xs:anyAttribute" use="optional"/&gt; &lt;/xs:complexType&gt;           </pre>				

	<pre> &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="Content" type="ContentMetaData" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Option specific reference to the content that aired used specifically when operator inserts content not originally scheduled.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="AsRunDetail" type="AsRunDetail"/&gt; &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	---

element
 BasicAsRun/AsRunEventId

<div> <div>diagram</div> <div> </div> </div>	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	EventExtId
properties	isRef 0 content complex
children	Null EventId BillingReferenceCode
annotation	documentation References the scheduled event ID unless the event was added manually in which case this the Null value should be used.
source	<pre> &lt;xs:element name="AsRunEventId" type="EventExtId"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;References the scheduled event ID unless the event was added manually in which case this the Null value should be used.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

diagram



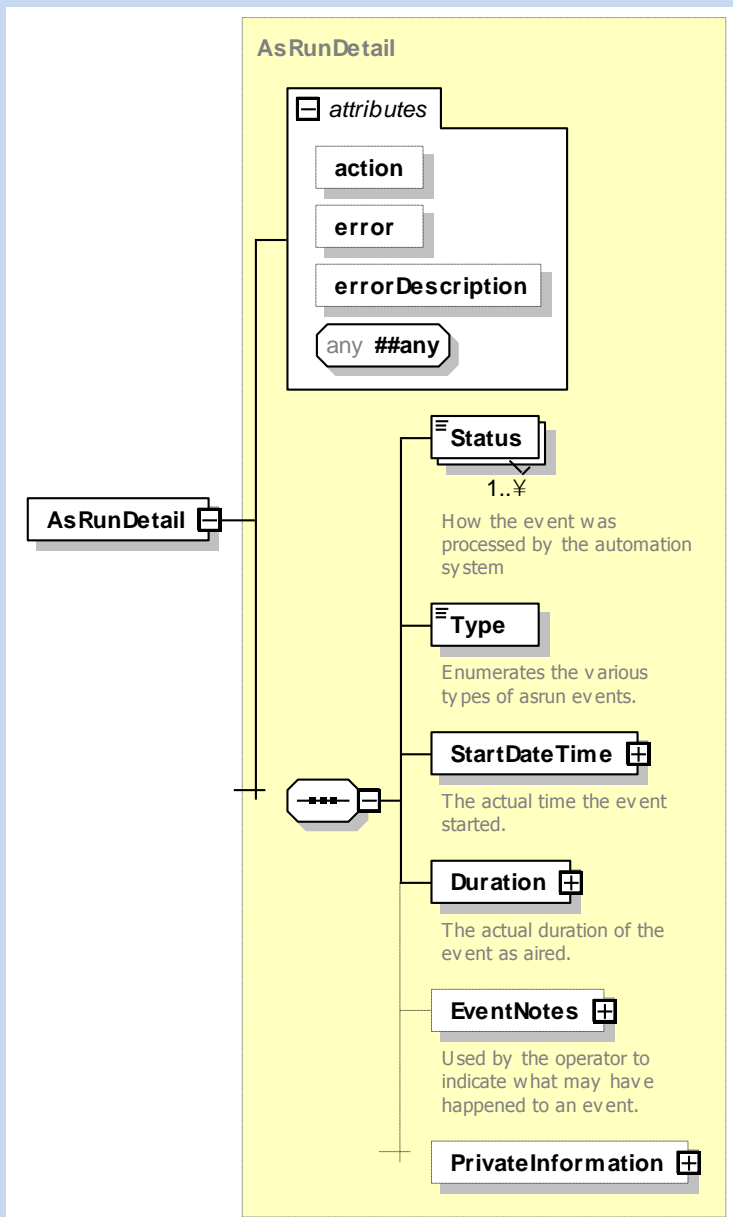
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [ContentMetaData](#)

properties	isRef0 minOcc0 maxOcc1 contentcomplex																								
children	<a href="#">ContentId</a> <a href="#">Name</a> <a href="#">DefaultLength</a> <a href="#">Genre</a> <a href="#">Description</a> <a href="#">UsagePolicy</a> <a href="#">Media</a> <a href="#">PrivateInformation</a>																								
attributes	<table><tr><td>Name</td><td>Type</td><td>Use</td><td>Default</td><td>Fixed</td><td>annotation</td></tr><tr><td><a href="#">action</a></td><td><a href="#">pmcp:actionType</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">error</a></td><td><a href="#">BxfError</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">errorDescription</a></td><td><b>xs:string</b></td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional				<a href="#">error</a>	<a href="#">BxfError</a>	optional				<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
Name	Type	Use	Default	Fixed	annotation																				
<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional																							
<a href="#">error</a>	<a href="#">BxfError</a>	optional																							
<a href="#">errorDescription</a>	<b>xs:string</b>	optional																							
annotation	documentation Option specific reference to the content that aired used specifically when operator inserts content not originally scheduled.																								
source	<xs:element name="Content" type="ContentMetaData" minOccurs="0"> <xs:annotation> <xs:documentation>Option specific reference to the content that aired used specifically when operator inserts content not originally scheduled.</xs:documentation> </xs:annotation> </xs:element>																								

element **BasicAsRun/AsRunDetail**

diagram

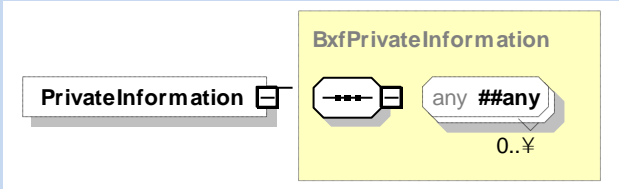


namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [AsRunDetail](#)

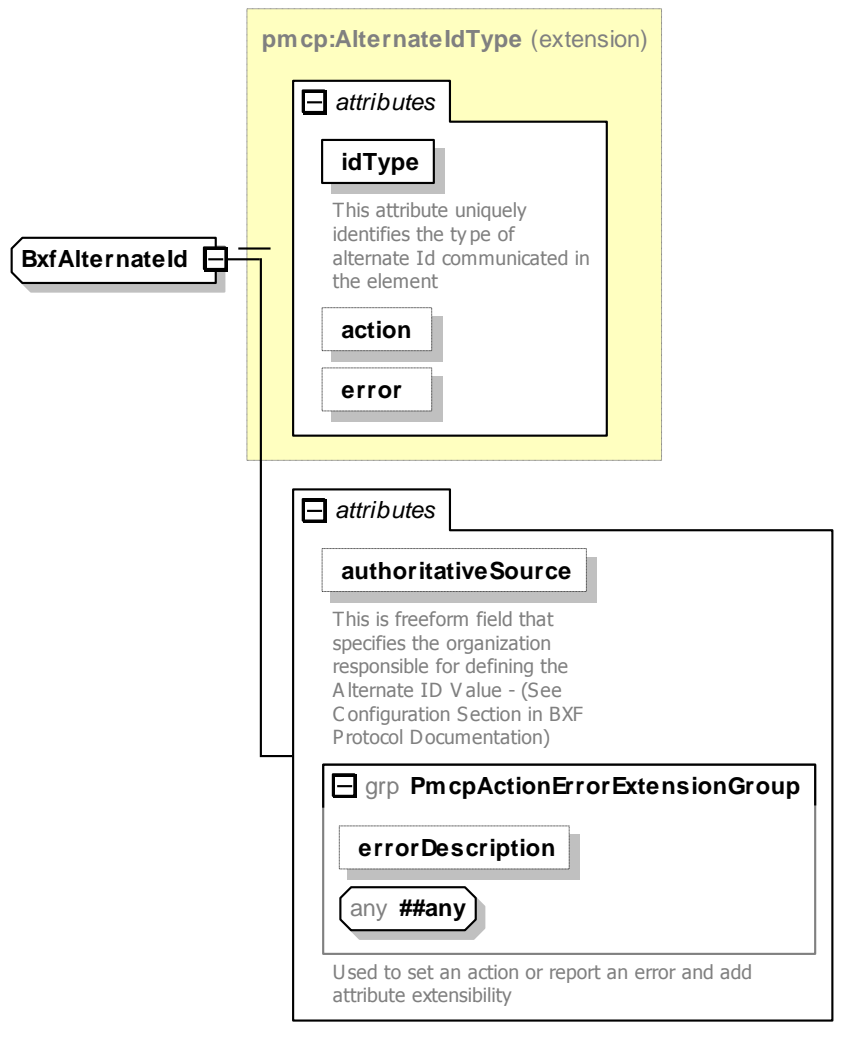
properties	isRef content	0 complex				
children	<a href="#">Status</a> <a href="#">Type</a> <a href="#">StartDateTime</a> <a href="#">Duration</a> <a href="#">EventNotes</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="AsRunDetail" type="AsRunDetail"/>					

#### element **BasicAsRun/PrivateInformation**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

# complexType **BxfAlternateld**

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	extension of <a href="#">pmcp:AlternateldType</a>					
properties	base	pmcp:AlternateldType				
used by	elements	<a href="#">BxfContentId/Alternateld</a> <a href="#">BxfContentId/Alternateld</a> <a href="#">BxfContentId/Alternateld</a>				
attributes	Name <a href="#">idType</a>	Type <b>xs:string</b>	Use required	Default	Fixed	annotation documentation

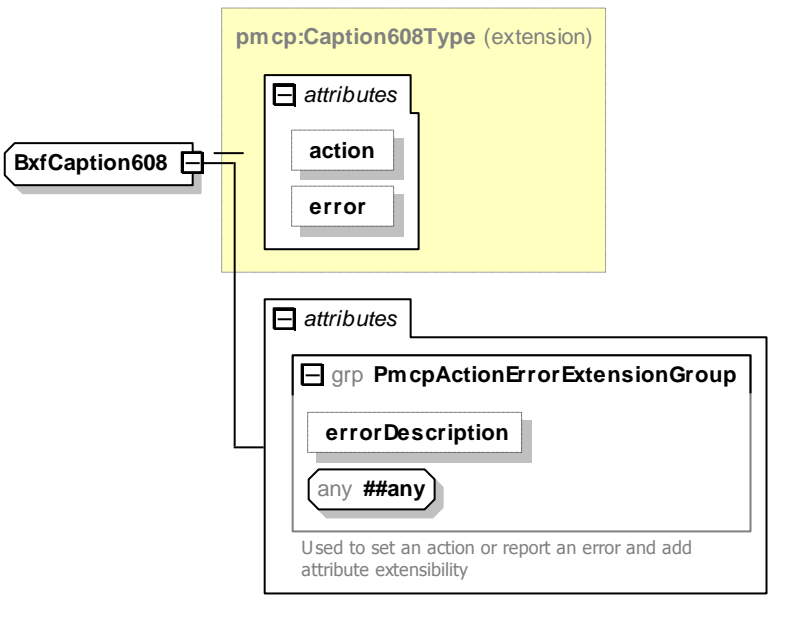
	<p><a href="#">action</a> <a href="#">pmcp:actionType</a> optional</p> <p><a href="#">error</a> <a href="#">pmcp:errorType</a> optional</p> <p><a href="#">authoritativeSource</a> <b>xs:string</b></p> <p><a href="#">errorDescription</a> <b>xs:string</b> optional</p> <p>documentation This is freeform field that specifies the organization responsible for defining the Alternate ID Value - (See Configuration Section in BXF Protocol Documentation)</p>	This attribute uniquely identifies the type of alternate Id communicated in the element
source	<pre> &lt;xs:complexType name="BxfAlternateId"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="pmcp:AlternateIdType"&gt;       &lt;xs:attribute name="authoritativeSource" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;This is freeform field that specifies the organization responsible for defining the Alternate ID Value - (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:attribute&gt;       &lt;xs:attributeGroup ref="PmcpActionErrorExtensionGroup"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>	

#### attribute **BxfAlternateId/@authoritativeSource**

type	<b>xs:string</b>
properties	isRef 0
annotation	documentation This is freeform field that specifies the organization responsible for defining the Alternate ID Value - (See Configuration Section in BXF Protocol Documentation)
source	<pre> &lt;xs:attribute name="authoritativeSource" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This is freeform field that specifies the organization responsible for defining the Alternate ID Value - (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

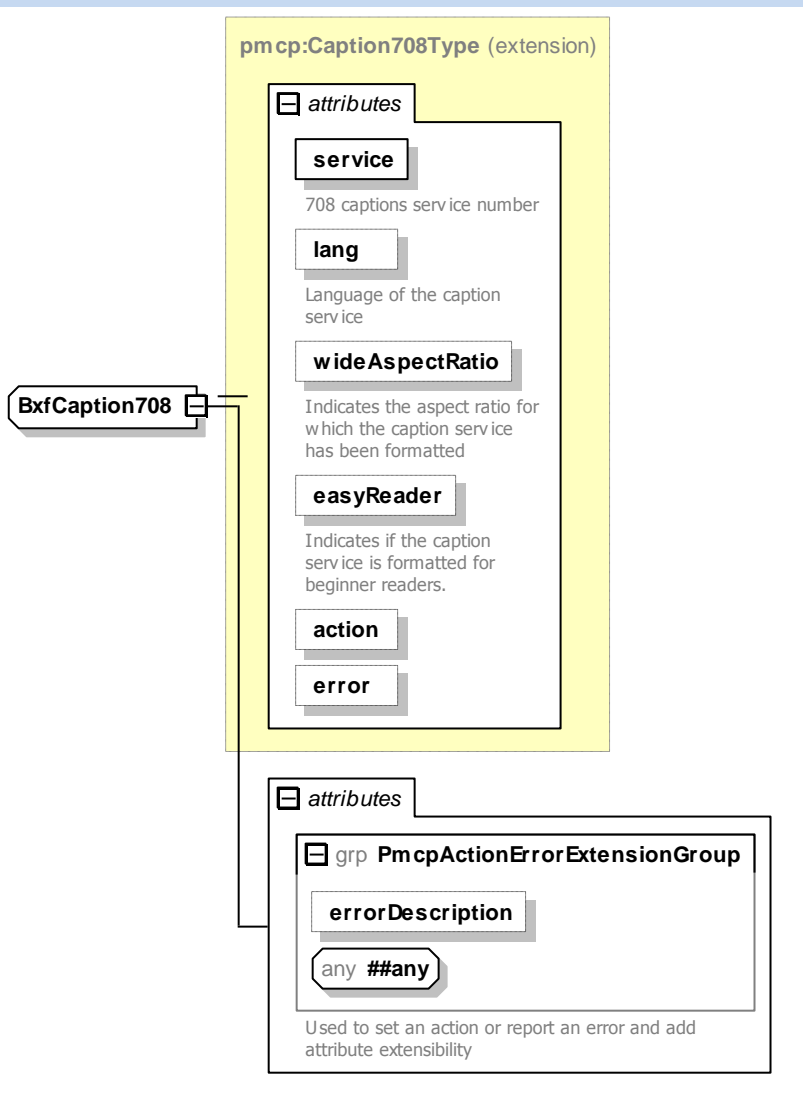


# complexType **BxfCaption608**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	extension of <a href="#">pmcp:Caption608Type</a>					
properties	base pmcp:Caption608Type					
used by	element <a href="#">BxfCaptions/Caption608</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">pmcp:errorType</a> <b>xs:string</b>	Use optional optional optional	Default Fixed	annotation	
source	<pre>&lt;xs:complexType name="BxfCaption608"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="pmcp:Caption608Type"&gt;       &lt;xs:attributeGroup ref="PmcpActionErrorExtensionGroup"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

# complexType **BxfCaption708**

diagram

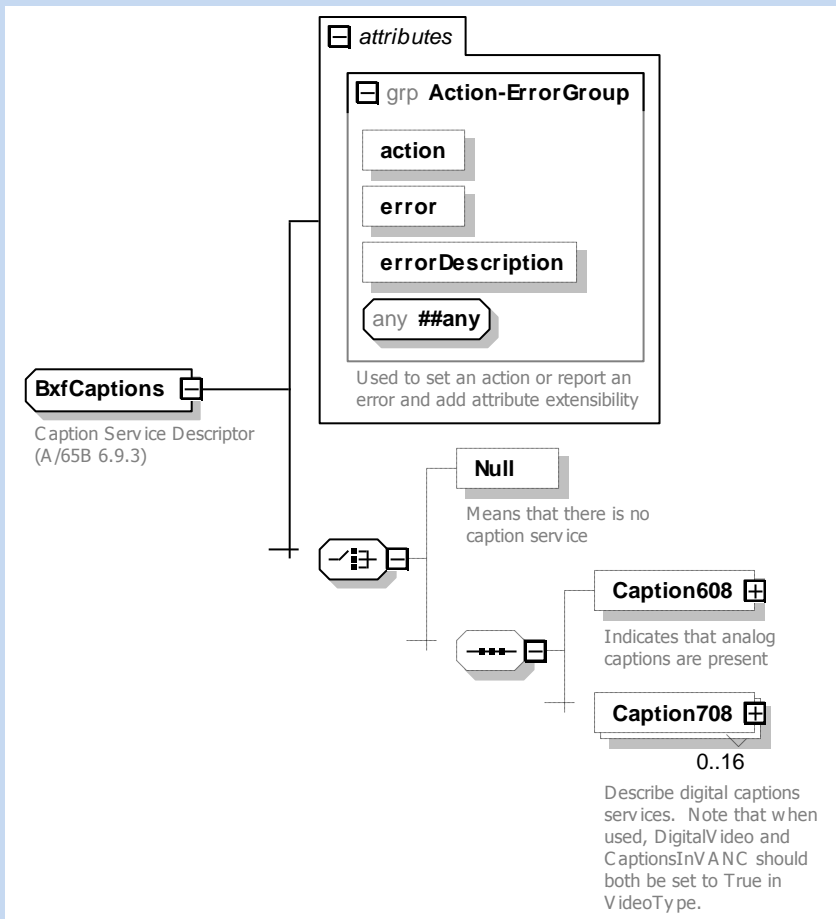


namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	extension of <a href="#">pmcp:Caption708Type</a>					
properties	base	pmcp:Caption708Type				
used by	element	<a href="#">BxfCaptions/Caption708</a>				
attributes	Name	Type	Use	Default	Fixed	annotation

	<a href="#">service</a> <a href="#">lang</a> <a href="#">wideAspectRatio</a> <a href="#">easyReader</a> <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	<a href="#">pmcp:ccServiceType</a> <a href="#">pmcp:languageType</a> <b>xs:boolean</b> <b>xs:boolean</b> <a href="#">pmcp:actionType</a> <a href="#">pmcp:errorType</a> <b>xs:string</b>	required optional optional optional optional optional optional	documentation 708 captions service number documentation Language of the caption service documentation Indicates the aspect ratio for which the caption service has been formatted documentation Indicates if the caption service is formatted for beginner readers.
source	<pre> &lt;xs:complexType name="BxfCaption708"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="pmcp:Caption708Type"&gt;       &lt;xs:attributeGroup ref="PmcpActionErrorExtensionGroup"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>			

# complexType **BxfCaptions**

diagram



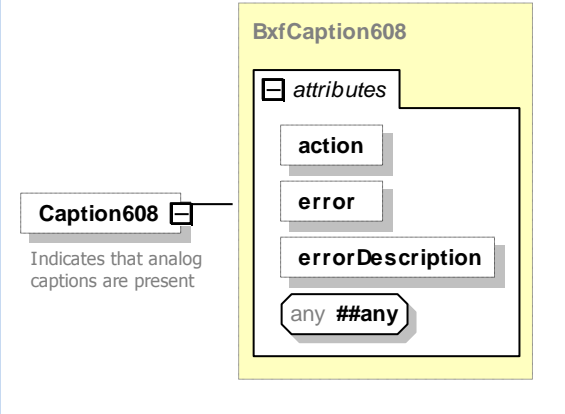
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
children	<a href="#">Null</a> <a href="#">Caption608</a> <a href="#">Caption708</a>					
used by	element	<a href="#">BaseMedia/BaseBand/Captions</a>				
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Caption Service Descriptor (A/65B 6.9.3)					
source	<pre> &lt;xs:complexType name="BxfCaptions"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Caption Service Descriptor (A/65B 6.9.3)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; </pre>					

	<pre>&lt;xs:choice&gt;   &lt;xs:element name="Null" minOccurs="0"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Means that there is no caption service&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:element&gt;   &lt;xs:sequence minOccurs="0"&gt;     &lt;xs:element name="Caption608" type="BxfCaption608" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Indicates that analog captions are present&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Caption708" type="BxfCaption708" minOccurs="0" maxOccurs="16"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Describe digital captions services. Note that when used, DigitalVideo and CaptionsInVANC should both be set to True in VideoType.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:choice&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt;</pre>
--	---

element BxfCaptions/Null

diagram	<div><div>Null</div><div>Means that there is no caption service</div></div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	<div>isRef0</div> <div>minOcc0</div> <div>maxOcc1</div> <div>contentcomplex</div>
annotation	<div>documentation</div> <div>Means that there is no caption service</div>
source	<pre>&lt;xs:element name="Null" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Means that there is no caption service&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>

element **BxfCaptions/Caption608**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfCaption608</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
annotation	documentation Indicates that analog captions are present					
source	<pre>&lt;xs:element name="Caption608" type="BxfCaption608" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates that analog captions are present&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

element **BxfCaptions/Caption708**

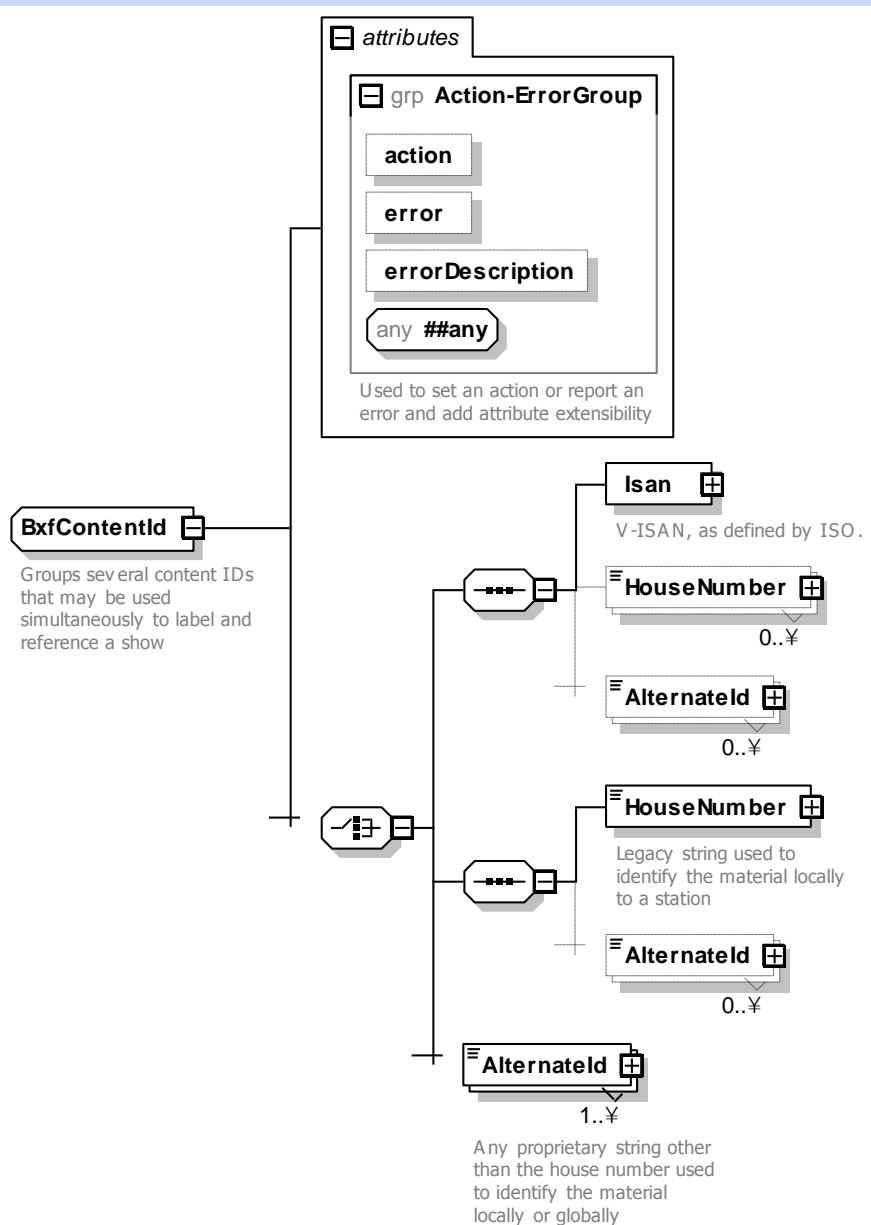
diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfCaption708</a>					
properties	isRef 0 minOcc 0 maxOcc 16 content complex					
attributes	Name <a href="#">service</a>  <a href="#">lang</a>  <a href="#">wideAspectRatio</a>  <a href="#">easyReader</a>	Type <a href="#">pmcp:ccServiceType</a>  <a href="#">pmcp:languageType</a>  <b>xs:boolean</b>  <b>xs:boolean</b>	Use required  optional  optional  optional	Default    	Fixed    	annotation documentation 708 captions service number documentation Language of the caption service documentation Indicates the aspect ratio for which the caption service has been formatted documentation

	<div><div><div><a href="#">action</a></div><div><a href="#">error</a></div><div><a href="#">errorDescription</a></div></div><div><div><a href="#">pmcp:actionType</a></div><div><a href="#">pmcp:errorType</a></div><div><b>xs:string</b></div></div><div><div>optional</div><div>optional</div><div>optional</div></div></div> <div>Indicates if the caption service is formatted for beginner readers.</div>
annotation	<div>documentation</div> <div>Describe digital captions services. Note that when used, DigitalVideo and CaptionsInVANC should both be set to True in VideoType.</div>
source	<div>&lt;xs:element name="Caption708" type="BxfCaption708" minOccurs="0" maxOccurs="16"&gt;</div> <div>&lt;xs:annotation&gt;</div> <div>&lt;xs:documentation&gt;Describe digital captions services. Note that when used, DigitalVideo and CaptionsInVANC should both be set to True in VideoType.&lt;/xs:documentation&gt;</div> <div>&lt;/xs:annotation&gt;</div> <div>&lt;/xs:element&gt;</div>



# complexType BxfContentId

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

children	<a href="#">Isan</a> <a href="#">HouseNumber</a> <a href="#">Alternateld</a> <a href="#">HouseNumber</a> <a href="#">Alternateld</a> <a href="#">Alternateld</a>					
used by	elements	<a href="#">AlternateAudioContent/ContentId</a> <a href="#">ContentMetaData/ContentId</a> <a href="#">ContentTransfer/Destination/DestinationContentId</a>				
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Groups several content IDs that may be used simultaneously to label and reference a show					
source	<pre> &lt;xs:complexType name="BxfContentId"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Groups several content IDs that may be used simultaneously to label and reference a show&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:choice&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Isan" type="BxfIsan"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;V-ISAN, as defined by ISO.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="HouseNumber" type="BxfHouseNumber" minOccurs="0" maxOccurs="unbounded"/&gt;       &lt;xs:element name="Alternateld" type="BxfAlternateld" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;/xs:sequence&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="HouseNumber" type="BxfHouseNumber"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Legacy string used to identify the material locally to a station&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Alternateld" type="BxfAlternateld" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;/xs:sequence&gt;     &lt;xs:element name="Alternateld" type="BxfAlternateld" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Any proprietary string other than the house number used to identify the material locally or globally&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:choice&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>					

# element **BxfContentId/Isan**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfIsan</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">root</a>	<a href="#">pmcp:isanRootType</a>	required			
	<a href="#">episodeOrPart</a>	<a href="#">pmcp:isanEpisodeType</a>	optional			
	<a href="#">check1</a>	<a href="#">pmcp:isanCheckType</a>	optional			
	<a href="#">version</a>	<a href="#">pmcp:isanVersionType</a>	optional			
	<a href="#">check2</a>	<a href="#">pmcp:isanCheckType</a>	optional			
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
annotation	documentation V-ISAN, as defined by ISO.					
source	<pre> &lt;xs:element name="Isan" type="BxfIsan"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;V-ISAN, as defined by ISO.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

element **BxfContentId/HouseNumber**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfHouseNumber</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="HouseNumber" type="BxfHouseNumber" minOccurs="0" maxOccurs="unbounded"/>					

# element **BxfContentId/Alternateld**

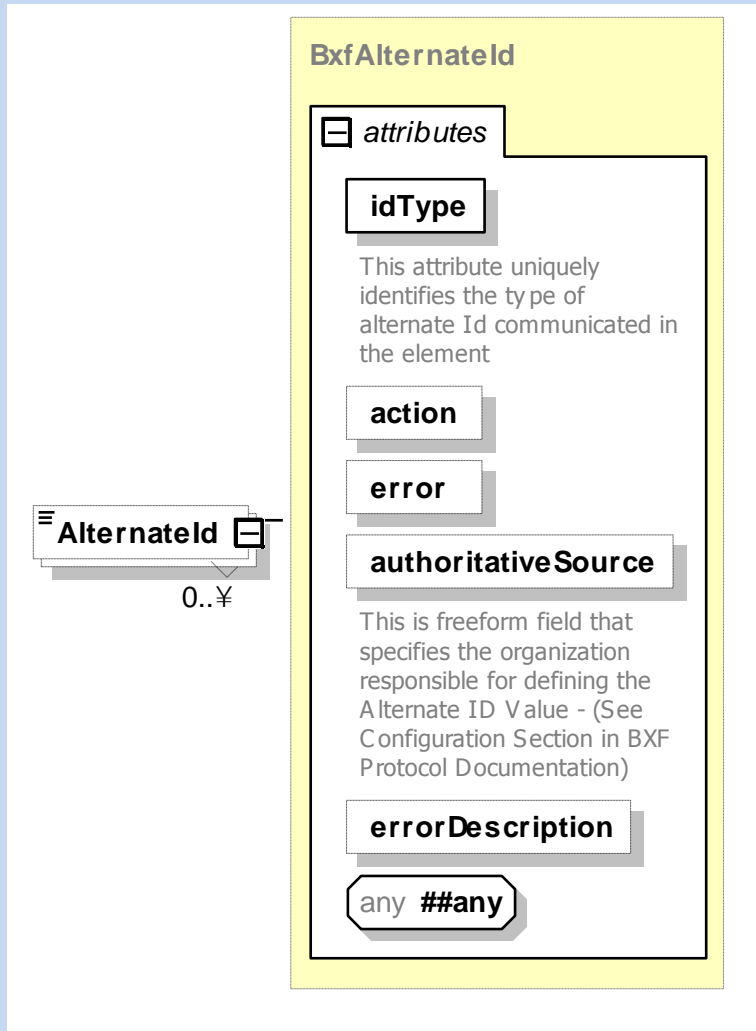
diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfAlternateld</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">idType</a>	xs:string	required			documentation This attribute uniquely identifies the type of alternate Id communicated in the element
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional			
	<a href="#">authoritativeSource</a>	xs:string				documentation This is freeform field that specifies the organization responsible for defining the Alternate ID Value - (See Configuration Section in BXF Protocol Documentation)
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="Alternateld" type="BxfAlternateld" minOccurs="0" maxOccurs="unbounded"/>					

element **BxfContentId/HouseNumber**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfHouseNumber</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
annotation	documentation Legacy string used to identify the material locally to a station					
source	<pre> &lt;xs:element name="HouseNumber" type="BxfHouseNumber"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Legacy string used to identify the material locally to a station&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

element **BxfContentId/Alternateld**

diagram



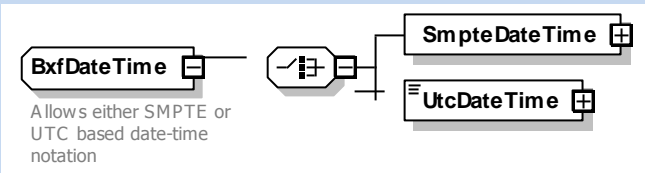
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfAlternateld</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">idType</a>	<b>xs:string</b>	required			documentation
						This attribute uniquely identifies the type of alternate Id





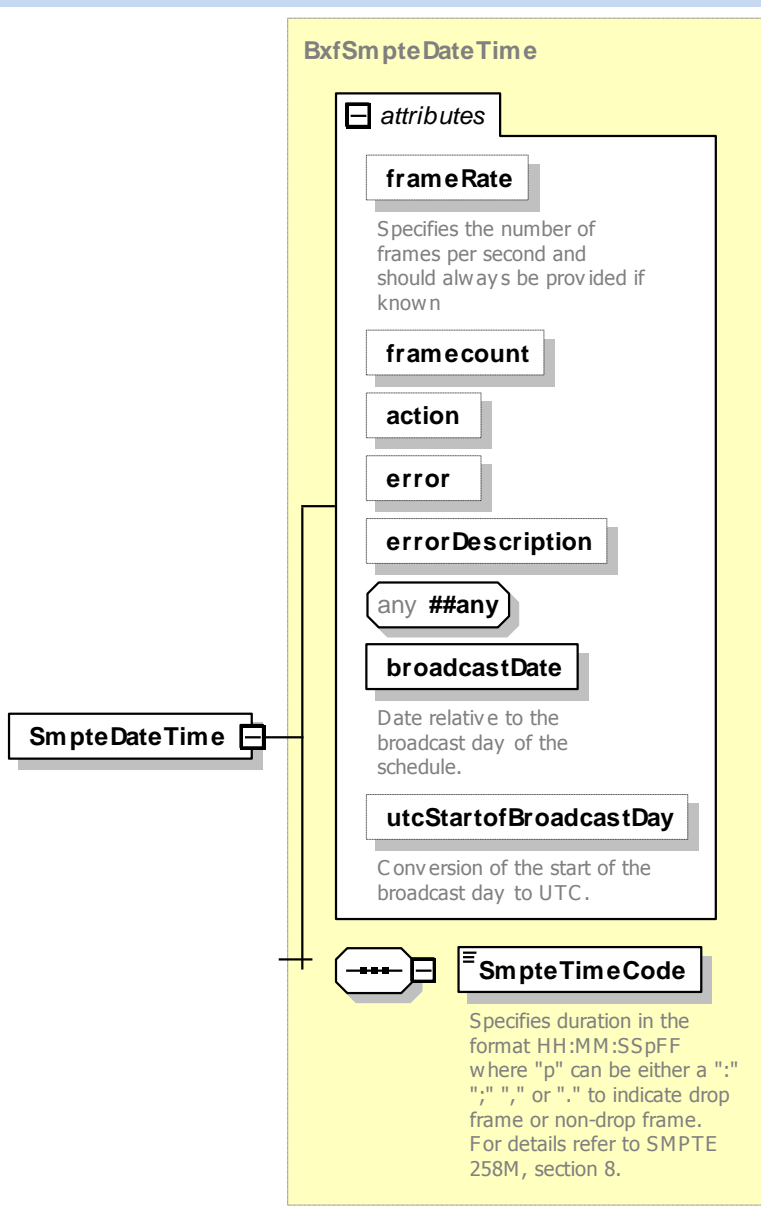
	maxOcc content	unbounded complex				
attributes	Name <a href="#">idType</a>  <a href="#">action</a> <a href="#">error</a> <a href="#">authoritativeSource</a>  <a href="#">errorDescription</a>	Type <b>xs:string</b>  <a href="#">pmcp:actionType</a> <a href="#">pmcp:errorType</a> <b>xs:string</b>  <b>xs:string</b>	Use required  optional optional  optional	Default	Fixed	annotation documentation This attribute uniquely identifies the type of alternate Id communicated in the element  documentation This is freeform field that specifies the organization responsible for defining the Alternate ID Value - (See Configuration Section in BXF Protocol Documentation)
annotation	documentation Any proprietary string other than the house number used to identify the material locally or globally					
source	<pre>&lt;xs:element name="AlternateId" type="BxfAlternateId" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Any proprietary string other than the house number used to identify the material locally or globally&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

### complexType **BxfDateTime**

diagram	 <p>Allows either SMPTE or UTC based date-time notation</p>
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>
children	<a href="#">SmpteDateTime</a> <a href="#">UtcDateTime</a>
used by	elements <a href="#">EventData/LengthOption/EndDateTime</a> <a href="#">AsRunDetail/StartDateTime</a> <a href="#">EventData/StartDateTime</a>
annotation	documentation Allows either SMPTE or UTC based date-time notation
source	<pre>&lt;xs:complexType name="BxfDateTime"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Allows either SMPTE or UTC based date-time notation&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:choice&gt;     &lt;xs:element name="SmpteDateTime" type="BxfSmpteDateTime"/&gt;     &lt;xs:element name="UtcDateTime" type="BxfUtcDateTime"/&gt;   &lt;/xs:choice&gt; &lt;/xs:complexType&gt;</pre>

# element **BxfDateTime/SmpDateTime**

diagram

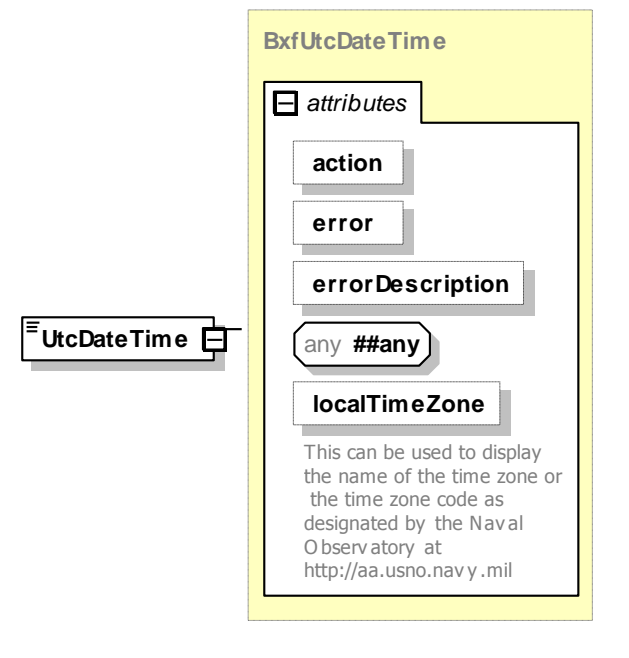


namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

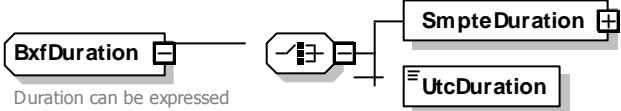
type	<a href="#">BxfSmpteDateTime</a>					
properties	isRef	0				
	content	complex				
children	<a href="#">SmpteTimeCode</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">frameRate</a>	<b>xs:decimal</b>				documentation Specifies the number of frames per second and should always be provided if known
	<a href="#">framecount</a>	<b>xs:integer</b>				
	<a href="#">action</a>	<b>pmcp:actionType</b>	optional			
	<a href="#">error</a>	<b>BxfError</b>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
	<a href="#">broadcastDate</a>	<b>xs:date</b>	required			
	<a href="#">utcStartofBroadcastDay</a>	<b>xs:dateTime</b>				documentation Date relative to the broadcast day of the schedule. documentation Conversion of the start of the broadcast day to UTC.
source	<xs:element name="SmpteDateTime" type="BxfSmpteDateTime"/>					

#### element **BxfDateTime/UtcDateTime**

diagram						
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>					
type	<a href="#">BxfUtcDateTime</a>					

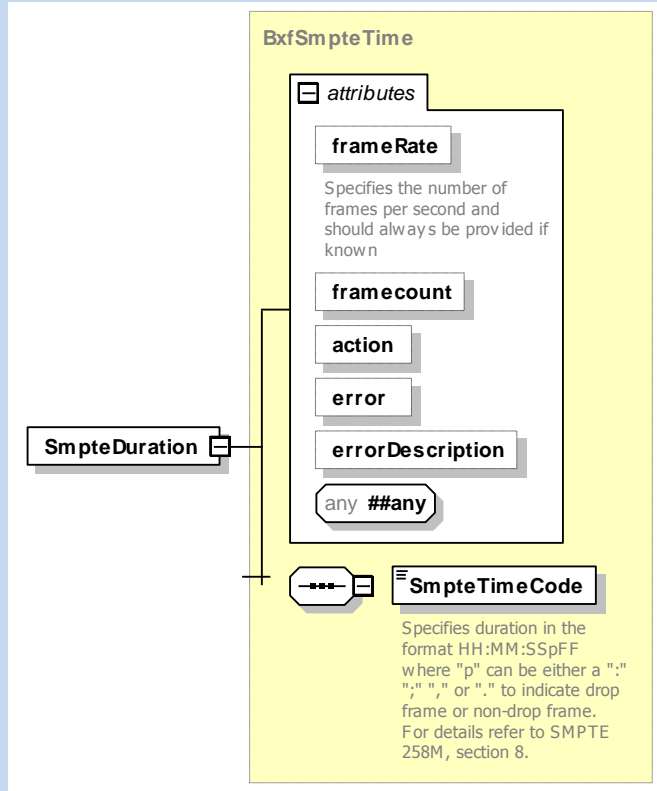
properties	isRef content	0 complex				
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a> <a href="#">localTimeZone</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation  documentation This can be used to display the name of the time zone or the time zone code as designated by the Naval Observatory at <a href="http://aa.usno.navy.mil">http://aa.usno.navy.mil</a>
source	<xs:element name="UtcDateTime" type="BxfUtcDateTime"/>					

### complexType **BxfDuration**

diagram	 <p>Duration can be expressed using either SMPTE time code or xs:duration</p>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
children	<a href="#">SmpteDuration</a> <a href="#">UtcDuration</a>
used by	elements <a href="#">ContentMetaData/DefaultLength</a> <a href="#">AsRunDetail/Duration</a> <a href="#">MediaLocation/Duration</a> <a href="#">Element/Duration</a> <a href="#">EventData/LengthOption/Duration</a> <a href="#">Format/FormatLength</a> <a href="#">Format/FormatStructure/FormatElements/NonPrimaryElements/NonPrimaryDuration</a> <a href="#">Format/FormatStructure/FormatElements/PrimaryDuration</a>
annotation	documentation Duration can be expressed using either SMPTE time code or xs:duration
source	<pre>&lt;xs:complexType name="BxfDuration"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Duration can be expressed using either SMPTE time code or xs:duration&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:choice&gt;     &lt;xs:element name="SmpteDuration" type="BxfSmpteTime"/&gt;     &lt;xs:element name="UtcDuration" type="xs:duration"/&gt;   &lt;/xs:choice&gt; &lt;/xs:complexType&gt;</pre>

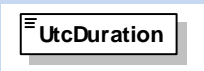
element **BxfDuration/SmpDuration**

diagram

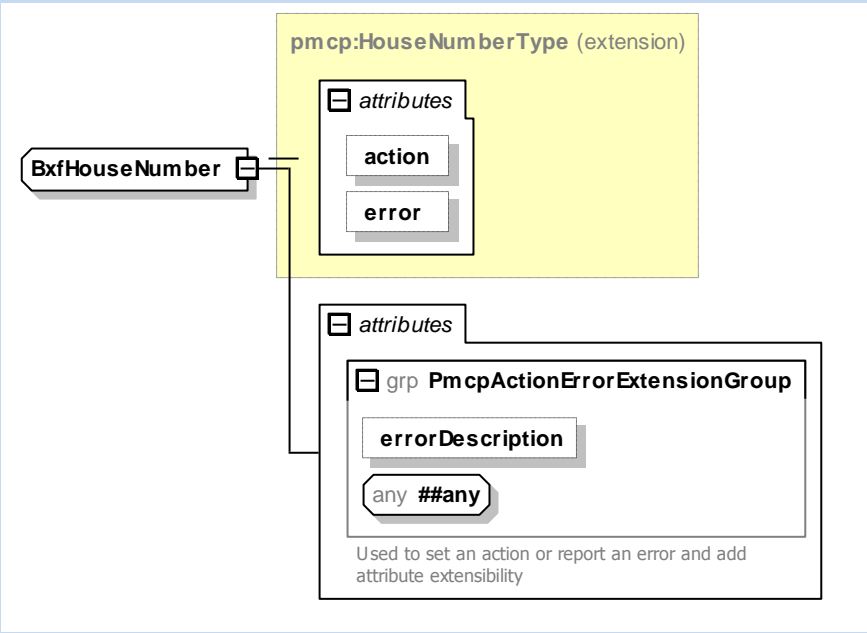


namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfSmpTime</a>					
properties	isRef	0	content	complex		
children	<a href="#">SmpTimeCode</a>					
attributes	Name <a href="#">frameRate</a>	Type <b>xs:decimal</b>	Use	Default	Fixed	annotation documentation Specifies the number of frames per second and should always be provided if known
	<a href="#">framecount</a>	<b>xs:integer</b>				
	<a href="#">action</a>	<b>pmcp:actionType</b>	optional			
	<a href="#">error</a>	<b>BxfError</b>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<xs:element name="SmpDuration" type="BxfSmpTime"/>					

## element BxfDuration/UtcDuration

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	xs:duration
properties	isRef 0 content simple
source	<xs:element name="UtcDuration" type="xs:duration"/>

## complexType BxfHouseNumber

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	extension of <a href="#">pmcp:HouseNumberType</a>					
properties	base pmcp:HouseNumberType					
used by	elements <a href="#">BxfContentId/HouseNumber</a> <a href="#">BxfContentId/HouseNumber</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">pmcp:errorType</a> xs:string	Use optional optional optional	Default 	Fixed 	annotation 
source	<xs:complexType name="BxfHouseNumber">					

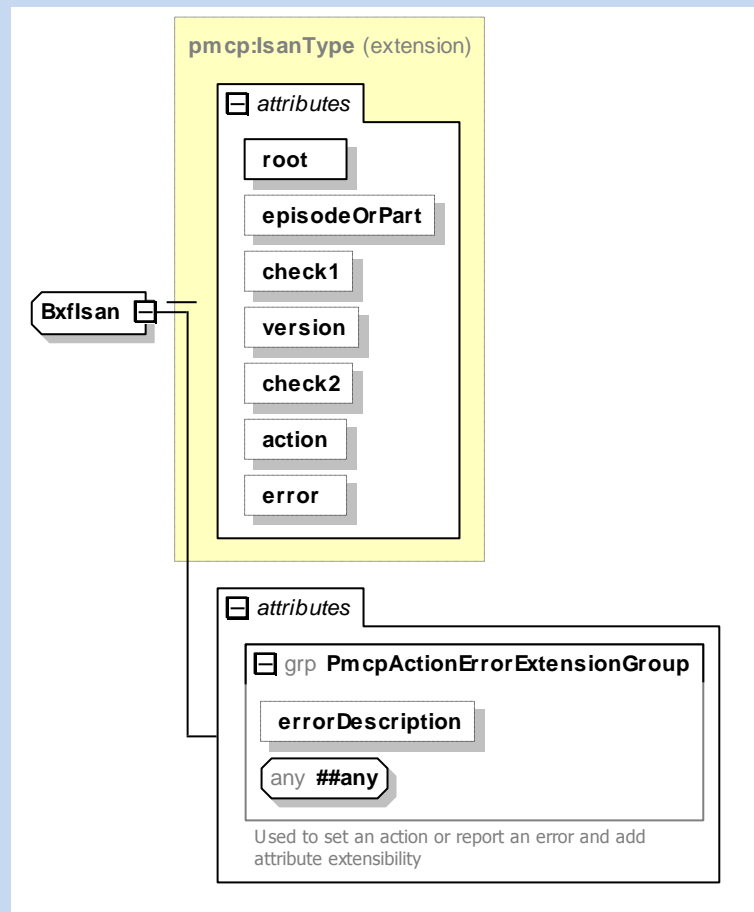
```

<xs:complexContent>
  <xs:extension base="pmcp:HouseNumberType">
    <xs:attributeGroup ref="PmcpActionErrorExtensionGroup"/>
  </xs:extension>
</xs:complexContent>
</xs:complexType>

```

## complexType BxfIsan

diagram



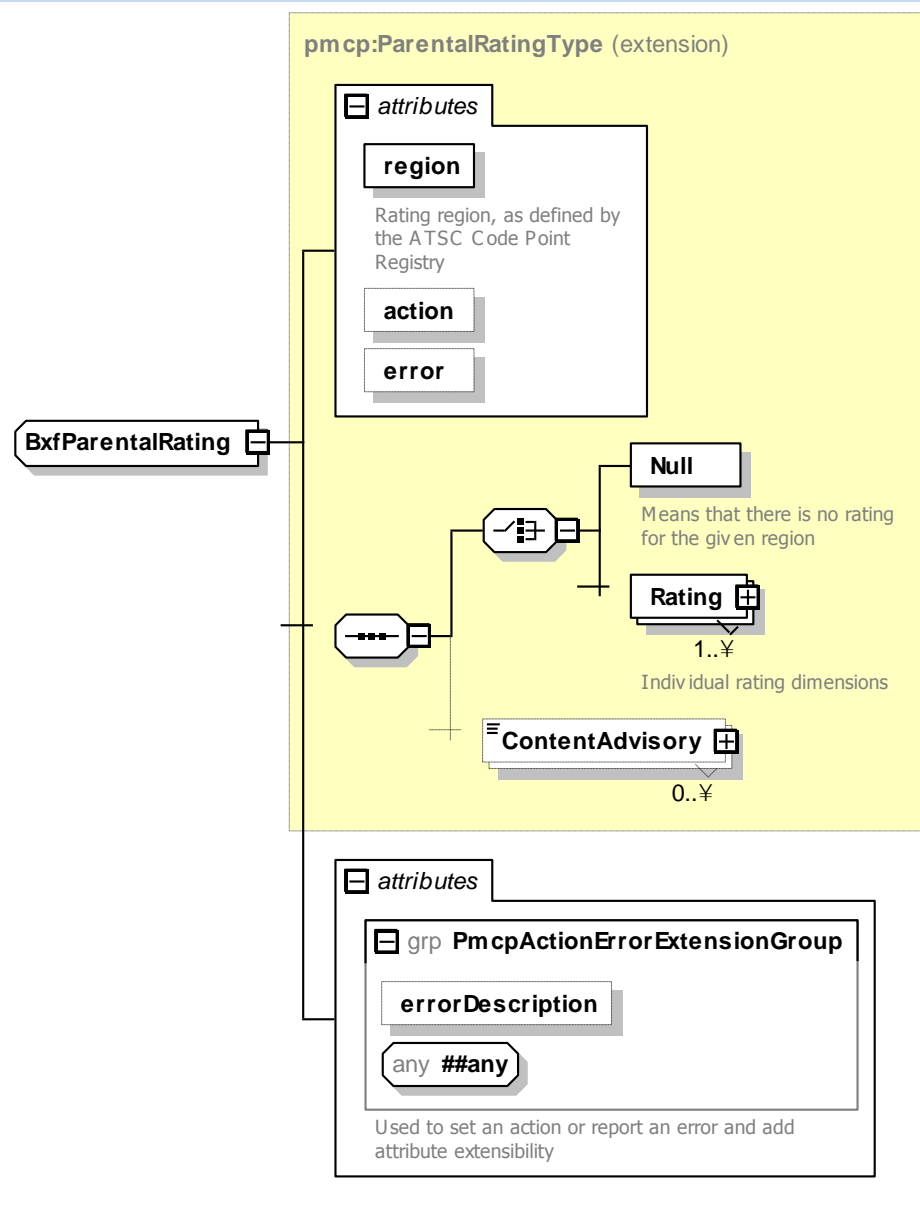
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	extension of <a href="#">pmcp:IsanType</a>
properties	base pmcp:IsanType
used by	element <a href="#">BxfContentId/Isan</a>

attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">root</a>	<a href="#">pmcp:isanRootType</a>	required			
	<a href="#">episodeOrPart</a>	<a href="#">pmcp:isanEpisodeType</a>	optional			
	<a href="#">check1</a>	<a href="#">pmcp:isanCheckType</a>	optional			
	<a href="#">version</a>	<a href="#">pmcp:isanVersionType</a>	optional			
	<a href="#">check2</a>	<a href="#">pmcp:isanCheckType</a>	optional			
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<pre> &lt;xs:complexType name="BxfIsan"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="pmcp:IsanType"&gt;       &lt;xs:attributeGroup ref="PmcpActionErrorExtensionGroup"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					



# complexType **BxfParentalRating**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type extension of [pmcp:ParentalRatingType](#)


properties	base pmcp:ParentalRatingType					
children	<a href="#">Null</a> <a href="#">Rating</a> <a href="#">ContentAdvisory</a>					
used by	elements	<a href="#">NonProgramContent/ParentalRating</a> <a href="#">ProgramContent/ParentalRating</a> <a href="#">ScheduledEvent/ParentalRating</a>				
attributes	Name <a href="#">region</a>	Type <b>xs:unsignedByte</b>	Use required	Default	Fixed	annotation documentation Rating region, as defined by the ATSC Code Point Registry
	<a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	<a href="#">pmcp:actionType</a> <a href="#">pmcp:errorType</a> <b>xs:string</b>	optional optional optional			
source	<pre>&lt;xs:complexType name="BxfParentalRating"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="pmcp:ParentalRatingType"&gt;       &lt;xs:attributeGroup ref="PmcpActionErrorExtensionGroup"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

### complexType BxfPrivateInformation

diagram	<div><div><div>BxfPrivateInformation</div><div>Any sequence of well-formed private XML elements</div></div><div><div>----</div><div></div></div><div><div>any ##any</div><div>0..∞</div></div></div>		
namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
used by	elements	<a href="#">Video/PrivateInformation</a> <a href="#">VideoTransition/PrivateInformation</a> <a href="#">AudioTransition/PrivateInformation</a> <a href="#">AlternateAudioContent/PrivateInformation</a> <a href="#">ContentMetadata/PrivateInformation</a> <a href="#">Constraint/Rules/PrivateInformation</a> <a href="#">BaseMedia/PrivateInformation</a> <a href="#">ContentTransfer/PrivateInformation</a> <a href="#">Element/PrivateInformation</a> <a href="#">EventData/PrivateInformation</a> <a href="#">UsagePolicy/PrivateInformation</a> <a href="#">SalesContract/PrivateInformation</a> <a href="#">Format/FormatStructure/FormatElements/PrivateInformation</a> <a href="#">Format/PrivateInformation</a> <a href="#">FormatUsage/PrivateInformation</a> <a href="#">Location/PrivateInformation</a> <a href="#">Macro/PrivateInformation</a> <a href="#">ProgramContract/PrivateInformation</a> <a href="#">ProgramElement/PrivateInformation</a> <a href="#">BxfMessage/BxfData/PrivateInformation</a> <a href="#">AsRunDetail/PrivateInformation</a> <a href="#">BasicAsRun/PrivateInformation</a> <a href="#">Configuration/PrivateInformation</a> <a href="#">MediaLocation/PrivateInformation</a> <a href="#">NonPrimaryEvent/PrivateInformation</a> <a href="#">NonProgramContent/PrivateInformation</a> <a href="#">NonProgramDetail/Agency/PrivateInformation</a> <a href="#">NonProgramDetail/Product/PrivateInformation</a> <a href="#">NonProgramDetail/PrivateInformation</a> <a href="#">NonProgramEvent/PrivateInformation</a> <a href="#">PrimaryEvent/PrivateInformation</a> <a href="#">ProgramContent/PrivateInformation</a> <a href="#">ProgramEvent/PrivateInformation</a> <a href="#">Schedule/PrivateInformation</a> <a href="#">ScheduledEvent/ScheduleElements/PrivateInformation</a> <a href="#">ScheduledEvent/PrivateInformation</a> <a href="#">Series/PrivateInformation</a> <a href="#">TSVideo/PrivateInformation</a>	
annotation	documentation	Any sequence of well-formed private XML elements	
source	<pre>&lt;xs:complexType name="BxfPrivateInformation"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Any sequence of well-formed private XML elements&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:any namespace="##any" processContents="lax" minOccurs="0" maxOccurs="unbounded"/&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt;</pre>		

# complexType BxfSmpteDateTime

diagram

**BxfSmpteDateTime** 

Used for date-time entry in the schema

## BxfSmpteTime (extension)

### attributes

#### frameRate

Specifies the number of frames per second and should always be provided if known

#### framecount

#### action

#### error

#### errorDescription

any **##any**



### SmpteTimeCode

Specifies duration in the format HH:MM:SSpFF where "p" can be either a ":" or "." to indicate drop frame or non-drop frame. For details refer to SMPTE 258M, section 8.

### attributes

#### broadcastDate

Date relative to the broadcast day of the schedule.

#### utcStartofBroadcastDay

Conversion of the start of the broadcast day to UTC.

namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

type	extension of <a href="#">BxfSmpteTime</a>					
properties	base <a href="#">BxfSmpteTime</a>					
children	<a href="#">SmpteTimeCode</a>					
used by	element <a href="#">BxfDateTime/SmpteDateTime</a>					
attributes	Name <a href="#">frameRate</a>  <a href="#">framecount</a> <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a> <a href="#">broadcastDate</a>  <a href="#">utcStartofBroadcastDay</a>	Type <b>xs:decimal</b>  <b>xs:integer</b> <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b> <b>xs:date</b>  <b>xs:dateTime</b>	Use   optional optional optional required	Default   Fixed	annotation documentation Specifies the number of frames per second and should always be provided if known     documentation Date relative to the broadcast day of the schedule. documentation Conversion of the start of the broadcast day to UTC.	
annotation	documentation Used for date-time entry in the schema					
source	<pre>&lt;xs:complexType name="BxfSmpteDateTime"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used for date-time entry in the schema&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="BxfSmpteTime"&gt;       &lt;xs:attribute name="broadcastDate" type="xs:date" use="required"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Date relative to the broadcast day of the schedule.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:attribute&gt;       &lt;xs:attribute name="utcStartofBroadcastDay" type="xs:dateTime"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Conversion of the start of the broadcast day to UTC.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:attribute&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt;</pre>					

#### attribute [BxfSmpteDateTime/@broadcastDate](#)

type	<b>xs:date</b>
properties	isRef 0 use required
annotation	documentation Date relative to the broadcast day of the schedule.
source	<pre> &lt;xs:attribute name="broadcastDate" type="xs:date" use="required"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date relative to the broadcast day of the schedule.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; </pre>

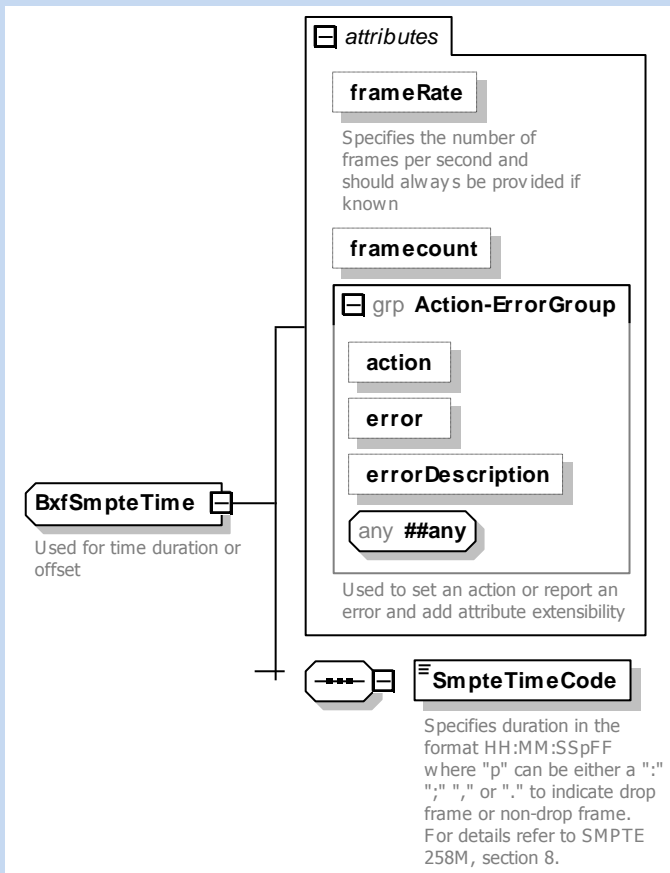
	</xs:attribute>
--	-----------------

attribute **BxfSmpteDateTime/@utcStartofBroadcastDay**

type	<b>xs:dateTime</b>
properties	isRef 0
annotation	documentation Conversion of the start of the broadcast day to UTC.
source	<xs:attribute name="utcStartofBroadcastDay" type="xs:dateTime"> <xs:annotation> <xs:documentation>Conversion of the start of the broadcast day to UTC.</xs:documentation> </xs:annotation> </xs:attribute>

# complexType **BxfSmpteTime**

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
children	<a href="#">SmpteTimeCode</a>					
used by	elements	<a href="#">Element/Offset</a> <a href="#">NonPrimaryEvent/Offset/OffsetTime</a> <a href="#">Format/FormatStructure/FormatElements/NonPrimaryElements/NonPrimaryOffset/OffsetTime</a> <a href="#">Format/FormatStructure/FormatElements/PrimaryOffset</a> <a href="#">BxfDuration/SmpteDuration</a> <a href="#">MediaLocation/SOM</a> <a href="#">VideoTransition/TransitionEom</a> <a href="#">VideoTransition/TransitionSom</a> <a href="#">BxfSmpteDateTime</a>				
attributes	complexType	Name	Type	Use	Default	Fixed
		<a href="#">frameRate</a>	xs:decimal			
		<a href="#">framecount</a>	xs:integer			
		<a href="#">action</a>	pmcp:actionType	optional		
		<a href="#">error</a>	BxfError	optional		
		<a href="#">errorDescription</a>	xs:string	optional		
						annotation documentation Specifies the number of frames per second and should always be provided if known



# element **BxfSmpteTime/SmpteTimeCode**

diagram	<div> <div> <div></div> <div><b>SmpteTimeCode</b></div> </div> <div> <p>Specifies duration in the format HH:MM:SSpFF where "p" can be either a ":" ;" " " or "." to indicate drop frame or non-drop frame. For details refer to SMPTE 258M, section 8.</p> </div> </div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">Smpte258MTimeCode</a>
properties	<div>isRef0</div> <div>contentsimple</div>
facets	<div>pattern</div> <div>((([0-1][0-9]) ([2][0-3])):[0-5][0-9]:[0-5][0-9](([.]) ([:]))([0-2][0-9]</div>
annotation	<div>documentation</div> <div>Specifies duration in the format HH:MM:SSpFF where "p" can be either a ":" ;" " " or "." to indicate drop frame or non-drop frame. For details refer to SMPTE 258M, section 8.</div>
source	<pre> &lt;xs:element name="SmpteTimeCode" type="Smpte258MTimeCode"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Specifies duration in the format HH:MM:SSpFF where "p" can be either a ":" ;" " " or "." to indicate drop frame or non-drop frame. For details refer to SMPTE 258M, section 8.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>



# complexType BxfText

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	extension of <b>xs:string</b>					
properties	base      xs:string					
used by	elements <a href="#">NonProgramDetail/AdvertiserName</a> <a href="#">NonProgramDetail/Agency/AgencyName</a> <a href="#">MediaLocation/ArchiveGroup/ArchiveName</a> <a href="#">Format/FormatStructure/FormatElements/AuthorizationList/AuthorizedName</a> <a href="#">Constraint/Rules/Classification</a> <a href="#">Configuration/ConfigurationData</a> <a href="#">ScheduledEvent/ContentType</a> <a href="#">Location/RouterSource/CrossPoint</a> <a href="#">ContentMetaData/Description</a> <a href="#">AlternateAudioContent/Description</a> <a href="#">Element/Description</a> <a href="#">Format/FormatStructure/FormatElements/Description</a> <a href="#">Format/FormatStructure/FormatElements/Description</a> <a href="#">Location/AssetServer/Description</a> <a href="#">ProgramContract/Distributor</a> <a href="#">Location/Satellite/Encoder</a> <a href="#">Series/EpisodeCode</a> <a href="#">Series/EpisodeName</a> <a href="#">EventData/EventDescription</a> <a href="#">EventNotes/EventNote</a> <a href="#">EventData/EventTitle</a> <a href="#">EventData/FederalSource</a> <a href="#">Format/FormatName</a> <a href="#">Format/FormatNotes</a> <a href="#">ContentMetaData/Genre</a> <a href="#">AlternateAudioContent/Genre</a> <a href="#">Location/PhysicalAsset/MediaReferenceName</a> <a href="#">NonProgramDetail/Product/Name</a> <a href="#">Location/RouterSource/Name</a> <a href="#">Configuration/Name</a> <a href="#">ProgramContract/Name</a> <a href="#">AlternateAudioContent/Name</a> <a href="#">ContentMetaData/Name</a> <a href="#">Format/FormatStructure/FormatElements/NonPrimaryElements/NonPrimaryDescription</a> <a href="#">Location/AssetServer/Password</a> <a href="#">ProgramEvent/ProgramName</a> <a href="#">Location/Satellite/Receiver</a> <a href="#">Location/AssetServer/ReferenceName</a> <a href="#">Constraint/Rules/RuleName</a> <a href="#">Location/Satellite/SatelliteName</a> <a href="#">Schedule/ScheduleName</a> <a href="#">Series/Season/SeasonName</a> <a href="#">ProgramElement/SegmentName</a> <a href="#">Series/SeriesName</a> <a href="#">Location/AssetServer/UserName</a>					
attributes	Name <a href="#">lang</a> <a href="#">size</a> <a href="#">type</a> <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:languageType</a> <b>xs:positiveInteger</b> <b>xs:string</b> <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use    optional optional optional	Default	Fixed	annotation
annotation	documentation Used for all free text entry elements in the schema					

source	<pre> &lt;xs:complexType name="BxfText"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used for all free text entry elements in the schema&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleContent&gt;     &lt;xs:extension base="xs:string"&gt;       &lt;xs:attribute name="lang" type="pmcp:languageType"/&gt;       &lt;xs:attribute name="size" type="xs:positiveInteger"/&gt;       &lt;xs:attribute name="type" type="xs:string"/&gt;       &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt; </pre>
--------	--

#### attribute **BxfText/@lang**

type	<a href="#">pmcp:languageType</a>
properties	isRef 0
facets	pattern [a-z]{3}
source	<pre>&lt;xs:attribute name="lang" type="pmcp:languageType"/&gt;</pre>

#### attribute **BxfText/@size**

type	<b>xs:positiveInteger</b>
properties	isRef 0
source	<pre>&lt;xs:attribute name="size" type="xs:positiveInteger"/&gt;</pre>

#### attribute **BxfText/@type**

type	<b>xs:string</b>
properties	isRef 0
source	<pre>&lt;xs:attribute name="type" type="xs:string"/&gt;</pre>

## complexType BxfUtcDateTime

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	extension of <b>xs:dateTime</b>					
properties	base      xs:dateTime					
used by	element <a href="#">BxfDateTime/UtcDateTime</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a> <a href="#">localTimeZone</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b> <b>xs:string</b>	Use optional optional optional	Default 	Fixed 	annotation     documentation This can be used to display the name of the time zone or the time zone code as designated by the Naval Observatory at <a href="http://aa.usno.navy.mil">http://aa.usno.navy.mil</a>
annotation	documentation Standard UTC Date-Time					
source	<pre> &lt;xs:complexType name="BxfUtcDateTime"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Standard UTC Date-Time&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleContent&gt;     &lt;xs:extension base="xs:dateTime"&gt;       &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt;       &lt;xs:attribute name="localTimeZone" type="xs:string"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;This can be used to display the name of the time zone or the time zone code as designated by the Naval Observatory at </pre>					

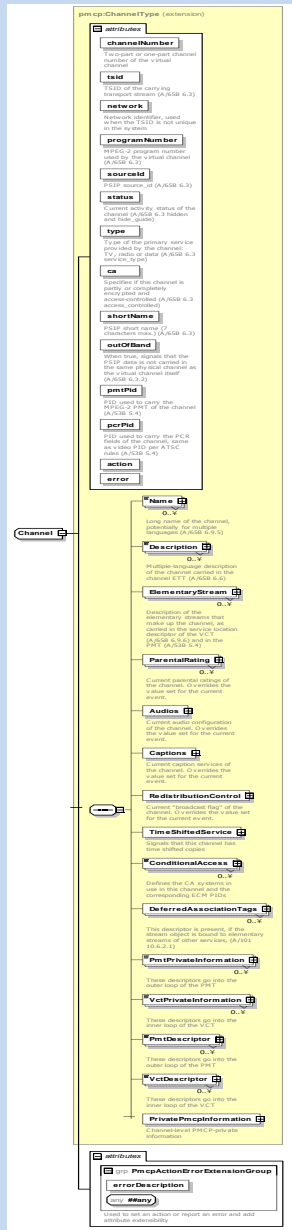
	<a href="http://aa.usno.navy.mil">http://aa.usno.navy.mil</a>
--	---

attribute BxfUtcDateTime/@localTimeZone

type	xs:string
properties	isRef 0
annotation	documentation This can be used to display the name of the time zone or the time zone code as designated by the Naval Observatory at <a href="http://aa.usno.navy.mil">http://aa.usno.navy.mil</a>
source	<xs:attribute name="localTimeZone" type="xs:string"> <xs:annotation> <xs:documentation>This can be used to display the name of the time zone or the time zone code as designated by the Naval Observatory at <a href="http://aa.usno.navy.mil">http://aa.usno.navy.mil</a> </xs:documentation> </xs:annotation> </xs:attribute>

# complexType Channel

diagram



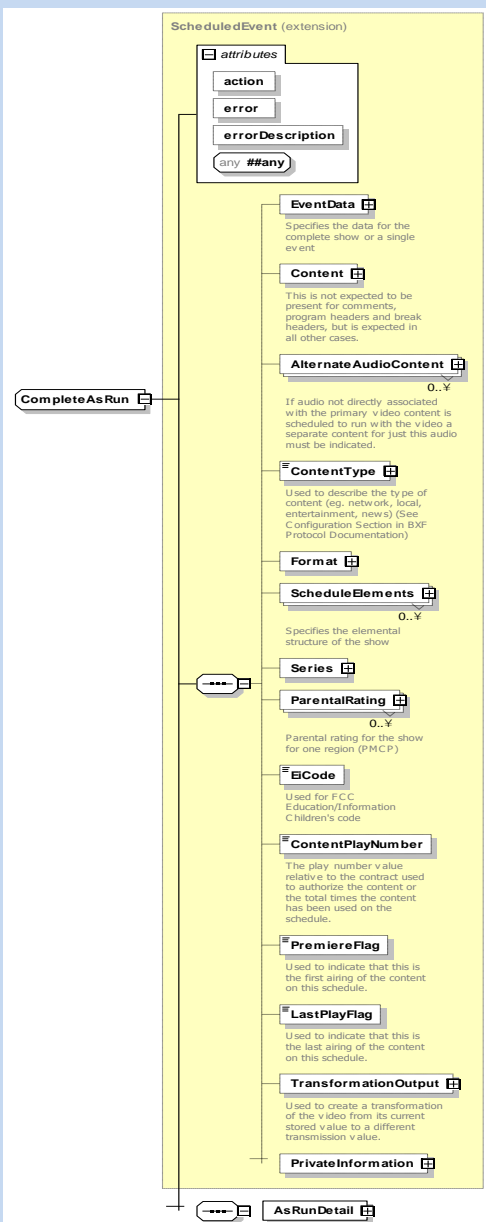
namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

type	extension of <a href="#">pmcp:ChannelType</a>					
properties	base pmcp:ChannelType					
children	<a href="#">Name</a> <a href="#">Description</a> <a href="#">ElementaryStream</a> <a href="#">ParentalRating</a> <a href="#">Audios</a> <a href="#">Captions</a> <a href="#">RedistributionControl</a> <a href="#">TimeShiftedService</a> <a href="#">ConditionalAccess</a> <a href="#">DeferredAssociationTags</a> <a href="#">PmtPrivateInformation</a> <a href="#">VctPrivateInformation</a> <a href="#">PmtDescriptor</a> <a href="#">VctDescriptor</a> <a href="#">PrivatePmcplInformation</a>					
used by	element <a href="#">Schedule/Channel</a>					
attributes	Name <a href="#">channelNumber</a>	Type <a href="#">pmcp:channelNumberType</a>	Use optional	Default	Fixed	annotation documentation Two-part or one-part channel number of the virtual channel documentation TSID of the carrying transport stream (A/65B 6.3) documentation Network identifier, used when the TSID is not unique in the system documentation MPEG-2 program number used by the virtual channel (A/65B 6.3) documentation PSIP source_id (A/65B 6.3) documentation Current activity status of the channel (A/65B 6.3 hidden and hide_guide) documentation Type of the primary service provided by the channel: TV, radio or data (A/65B 6.3 service_type) documentation Specifies if this channel is partly or completely encrypted and access-controlled (A/65B 6.3 access_controlled) documentation PSIP short name (7 characters max.) (A/65B 6.3) documentation When true, signals that the PSIP data is not carried in the same physical channel as the virtual channel itself (A/65B 6.3.2) documentation PID used to carry the MPEG-2 PMT of the channel (A/53B 5.4) documentation PID used to carry the PCR fields of the channel, same as video PID per ATSC rules (A/53B 5.4)
	<a href="#">tsid</a>	xs:unsignedShort	optional			
	<a href="#">network</a>	xs:unsignedShort	optional			
	<a href="#">programNumber</a>	xs:unsignedShort	optional			
	<a href="#">sourceId</a>	xs:unsignedShort	optional			
	<a href="#">status</a>	<a href="#">pmcp:channelStatusType</a>	optional			
	<a href="#">type</a>	<a href="#">pmcp:serviceType</a>	optional			
	<a href="#">ca</a>	xs:boolean	optional			
	<a href="#">shortName</a>	<a href="#">pmcp:shortNameType</a>	optional			
	<a href="#">outOfBand</a>	xs:boolean	optional			
	<a href="#">pmtPid</a>	<a href="#">pmcp:pidType</a>	optional			
	<a href="#">pcrPid</a>	<a href="#">pmcp:pidType</a>	optional			
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<pre> &lt;xs:complexType name="Channel"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="pmcp:ChannelType"&gt;       &lt;xs:attributeGroup ref="PmcplActionErrorExtensionGroup"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					

# complexType CompleteAsRun

diagram



namespace

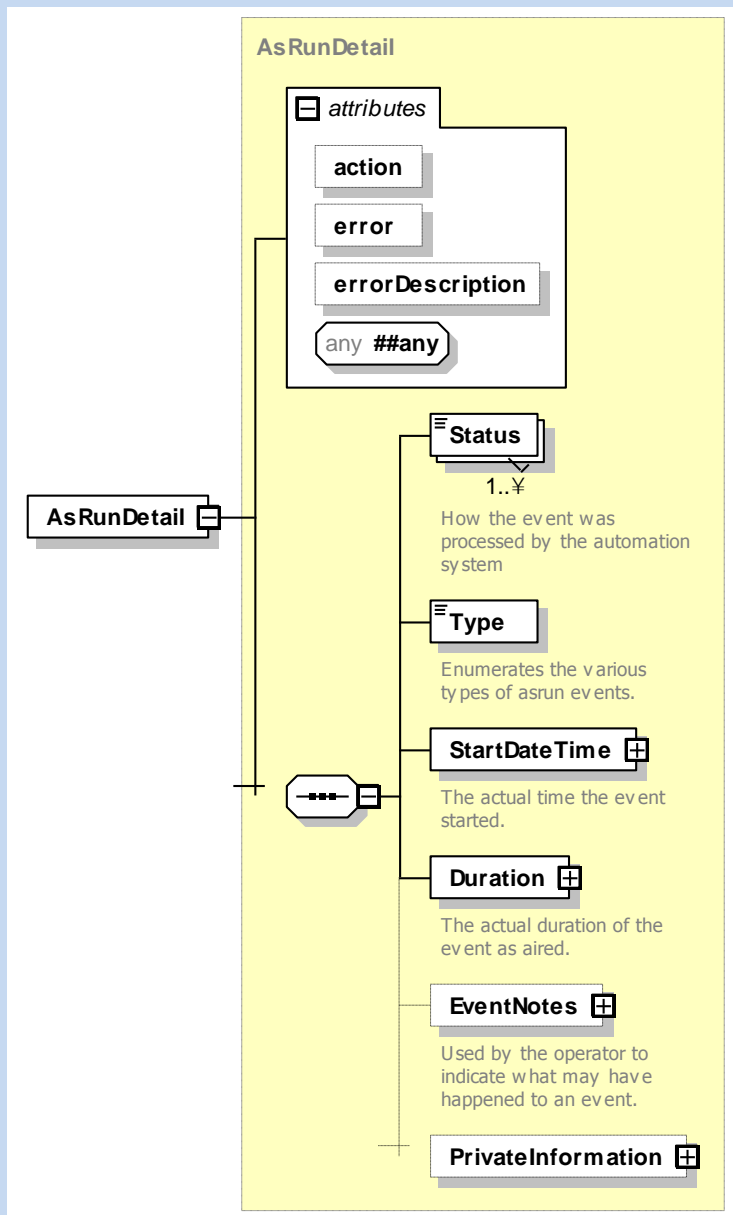
<http://smpte-ra.org/schemas/2021/2008/BXF>

type	extension of <a href="#">ScheduledEvent</a>					
properties	base      ScheduledEvent					
children	<a href="#">EventData</a> <a href="#">Content</a> <a href="#">AlternateAudioContent</a> <a href="#">ContentType</a> <a href="#">Format</a> <a href="#">ScheduleElements</a> <a href="#">Series</a> <a href="#">ParentalRating</a> <a href="#">EiCode</a> <a href="#">ContentPlayNumber</a> <a href="#">PremiereFlag</a> <a href="#">LastPlayFlag</a> <a href="#">TransformationOutput</a> <a href="#">PrivateInformation</a> <a href="#">AsRunDetail</a>					
used by	element <a href="#">Schedule/AsRun/CompleteAsRun</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<pre> &lt;xs:complexType name="CompleteAsRun"&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="ScheduledEvent"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="AsRunDetail" type="AsRunDetail"/&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					



element **CompleteAsRun/AsRunDetail**

diagram

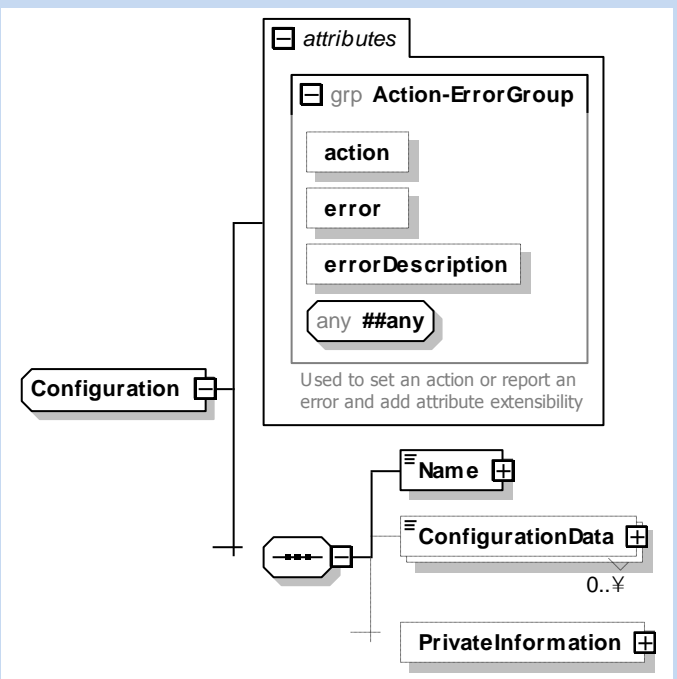


namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [AsRunDetail](#)

properties	isRef content	0 complex				
children	<a href="#">Status</a> <a href="#">Type</a> <a href="#">StartTime</a> <a href="#">Duration</a> <a href="#">EventNotes</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="AsRunDetail" type="AsRunDetail"/>					

## complexType Configuration

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
children	<a href="#">Name</a> <a href="#">ConfigurationData</a> <a href="#">PrivateInformation</a>					
used by	element	<a href="#">BxfMessage/BxfData/Configuration</a>				
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use optional optional optional	Default	Fixed	annotation
source	<pre>&lt;xs:complexType name="Configuration"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Name" type="BxfText"/&gt;     &lt;xs:element name="ConfigurationData" type="BxfText" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xs:element name="PrivateInformation" type="BxfText"/&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt;</pre>					

```
<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
</xs:sequence>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>
```

element Configuration/Name

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="Name" type="BxfText"/>					

## element Configuration/ConfigurationData

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="ConfigurationData" type="BxfText" minOccurs="0" maxOccurs="unbounded"/>					

## element Configuration/PrivateInformation

diagram						
---------	--	--	--	--	--	--

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	<div>isRef 0</div> <div>minOcc 0</div> <div>maxOcc 1</div> <div>content complex</div>
source	<code>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</code>

## complexType Constraint

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
children	<a href="#">Rules</a>
used by	elements <a href="#">NonProgramEvent/Constraints</a> <a href="#">ProgramEvent/Constraints</a>
source	<pre> &lt;xs:complexType name="Constraint"&gt;   &lt;xs:sequence minOccurs="0" maxOccurs="unbounded"&gt;     &lt;xs:element name="Rules" minOccurs="0"&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence&gt;           &lt;xs:element name="RuleName" type="BxfText"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;A name to reference the rule&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="StartTimeLimit" type="xs:time" minOccurs="0"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;The earliest permitted start time for this event under the terms of the contract&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="EndTimeLimit" type="xs:time" minOccurs="0"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;The latest permitted start time for this event under the terms of the contract&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="StartDateLimit" type="xs:date" minOccurs="0"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;First date that this event can be aired on.&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="EndDateLimit" type="xs:date" minOccurs="0"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Last date that this event can be aired on.&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="DaysOfWeekAllowed" type="DayPattern" minOccurs="0"&gt; </pre>

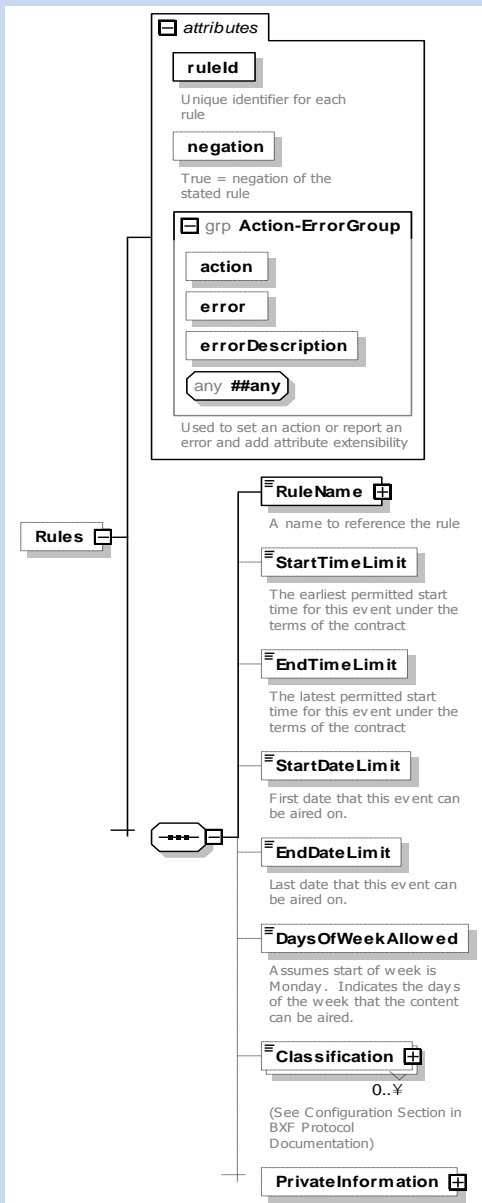
```

<xs:annotation>
  <xs:documentation>Assumes start of week is Monday. Indicates the days of the week that the content can be aired.</xs:documentation>
</xs:annotation>
</xs:element>
<xs:element name="Classification" type="BxfText" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>(See Configuration Section in BXF Protocol Documentation)</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
</xs:sequence>
<xs:attribute name="ruleId" type="Uuid" use="required">
  <xs:annotation>
    <xs:documentation>Unique identifier for each rule</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="negation" type="xs:boolean">
  <xs:annotation>
    <xs:documentation>True = negation of the stated rule</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>

```

## element Constraint/Rules

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

properties

isRef	0
minOcc	0

	maxOcc content	1 complex				
children	<a href="#">RuleName</a> <a href="#">StartTimeLimit</a> <a href="#">EndTimeLimit</a> <a href="#">StartDateLimit</a> <a href="#">EndDateLimit</a> <a href="#">DaysOfWeekAllowed</a> <a href="#">Classification</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">ruleId</a>  <a href="#">negation</a>  <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">Uuid</a>  <b>xs:boolean</b>  <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use required   optional optional optional	Default	Fixed	annotation documentation Unique identifier for each rule documentation True = negation of the stated rule
source	<pre>&lt;xs:element name="Rules" minOccurs="0"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="RuleName" type="BxfText"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;A name to reference the rule&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="StartTimeLimit" type="xs:time" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The earliest permitted start time for this event under the terms of the contract&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="EndTimeLimit" type="xs:time" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The latest permitted start time for this event under the terms of the contract&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="StartDateLimit" type="xs:date" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;First date that this event can be aired on.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="EndDateLimit" type="xs:date" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Last date that this event can be aired on.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="DaysOfWeekAllowed" type="DayPattern" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Assumes start of week is Monday. Indicates the days of the week that the content can be aired.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Classification" type="BxfText" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;(See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;     &lt;/xs:sequence&gt;     &lt;xs:attribute name="ruleId" type="Uuid" use="required"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Unique identifier for each rule&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:attribute&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>					



	<pre> &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="negation" type="xs:boolean"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;True = negation of the stated rule&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	--

#### attribute **Constraint/Rules/@ruleId**

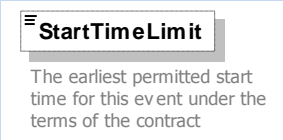
type	<a href="#">Uuid</a>
properties	isRef 0 use required
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}
annotation	documentation Unique identifier for each rule
source	<pre> &lt;xs:attribute name="ruleId" type="Uuid" use="required"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;Unique identifier for each rule&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **Constraint/Rules/@negation**

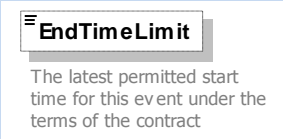
type	<b>xs:boolean</b>
properties	isRef 0
annotation	documentation True = negation of the stated rule
source	<pre> &lt;xs:attribute name="negation" type="xs:boolean"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;True = negation of the stated rule&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>



## element **Constraint/Rules/StartTimeLimit**

diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:time</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	documentation The earliest permitted start time for this event under the terms of the contract								
source	<pre> &lt;xs:element name="StartTimeLimit" type="xs:time" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The earliest permitted start time for this event under the terms of the contract&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;           </pre>								

## element **Constraint/Rules/EndTimeLimit**

diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:time</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	documentation The latest permitted start time for this event under the terms of the contract								
source	<pre> &lt;xs:element name="EndTimeLimit" type="xs:time" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The latest permitted start time for this event under the terms of the contract&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;           </pre>								


### element **Constraint/Rules/StartDateLimit**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:date</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation First date that this event can be aired on.
source	<pre>&lt;xs:element name="StartDateLimit" type="xs:date" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;First date that this event can be aired on.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

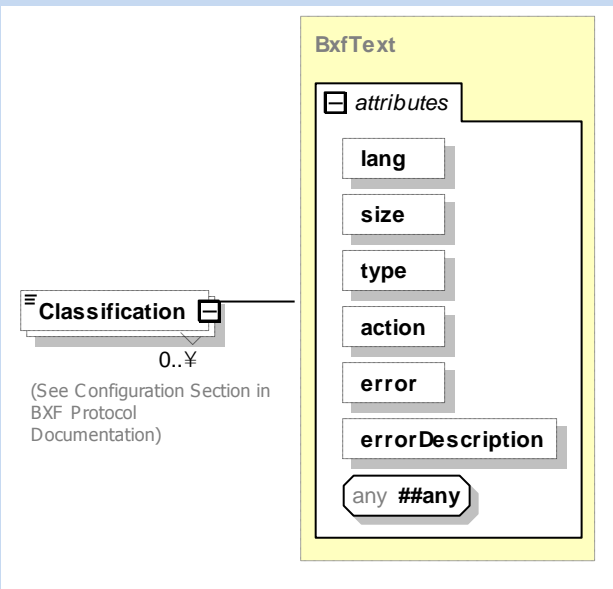
### element **Constraint/Rules/EndDateLimit**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:date</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Last date that this event can be aired on.
source	<pre>&lt;xs:element name="EndDateLimit" type="xs:date" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Last date that this event can be aired on.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element **Constraint/Rules/DaysOfWeekAllowed**

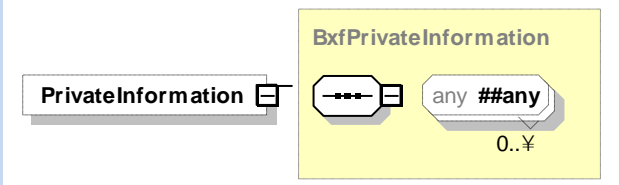
diagram	 <p><b>DaysOfWeekAllowed</b></p> <p>Assumes start of week is Monday. Indicates the days of the week that the content can be aired.</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">DayPattern</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
facets	<table> <tr><td>length</td><td>7</td></tr> <tr><td>pattern</td><td>[0,1]{7}</td></tr> </table>	length	7	pattern	[0,1]{7}				
length	7								
pattern	[0,1]{7}								
annotation	<p>documentation</p> <p>Assumes start of week is Monday. Indicates the days of the week that the content can be aired.</p>								
source	<pre>&lt;xs:element name="DaysOfWeekAllowed" type="DayPattern" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Assumes start of week is Monday. Indicates the days of the week that the content can be aired.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

## element **Constraint/Rules/Classification**

diagram	 <p><b>Classification</b></p> <p>0..∞</p> <p>(See Configuration Section in BXF Protocol Documentation)</p> <p><b>BxfText</b></p> <p><b>attributes</b></p> <ul style="list-style-type: none"> <li>lang</li> <li>size</li> <li>type</li> <li>action</li> <li>error</li> <li>errorDescription</li> <li>any ##any</li> </ul>
---------	--

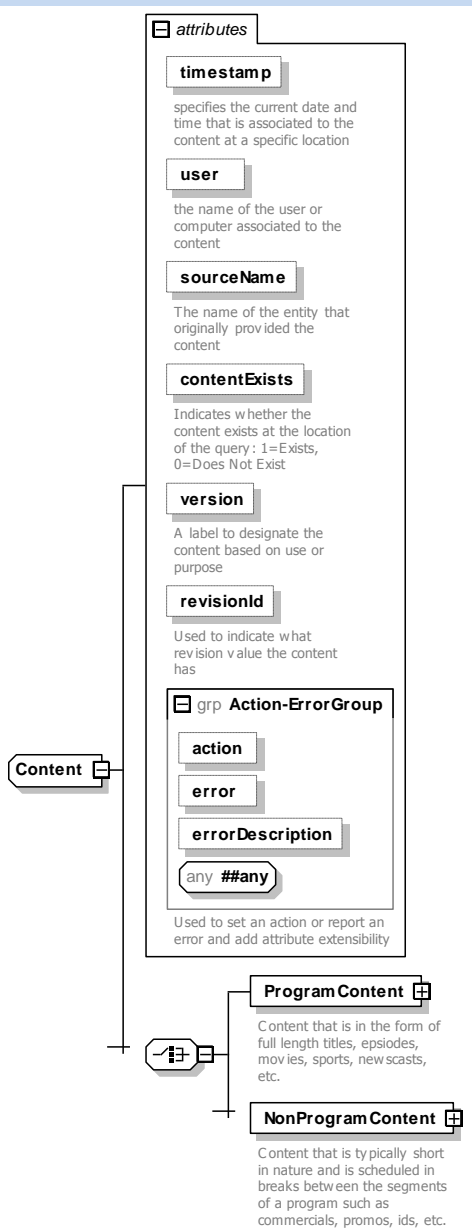
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
annotation	documentation (See Configuration Section in BXF Protocol Documentation)					
source	<pre>&lt;xs:element name="Classification" type="BxfText" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;(See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

#### element **Constraint/Rules/PrivateInformation**

diagram		
namespace	http://smpte-ra.org/schemas/2021/2008/BXF	
type	<a href="#">BxfPrivateInformation</a>	
properties	isRef	0
	minOcc	0
	maxOcc	1
	content	complex
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>	

# complexType Content

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

children	<a href="#">ProgramContent</a> <a href="#">NonProgramContent</a>					
used by	elements	<a href="#">BxfMessage/BxfData/Content</a> <a href="#">ContentTransfer/Content</a>				
attributes	Name <a href="#">timestamp</a>  <a href="#">user</a> <a href="#">sourceName</a> <a href="#">contentExists</a>  <a href="#">version</a> <a href="#">revisionId</a>  <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <b>xs:dateTime</b>  <b>derived by:</b> <b>xs:string</b> <b>derived by:</b> <b>xs:string</b> <b>xs:boolean</b>  <b>derived by:</b> <b>xs:string</b> <b>derived by:</b> <b>xs:string</b> <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use          optional optional optional	Default          	Fixed          	annotation documentation specifies the current date and time that is associated to the content at a specific location documentation the name of the user or computer associated to the content documentation The name of the entity that originally provided the content documentation Indicates whether the content exists at the location of the query: 1=Exists, 0=Does Not Exist documentation A label to designate the content based on use or purpose documentation Used to indicate what revision value the content has
source	<pre> &lt;xs:complexType name="Content"&gt;   &lt;xs:choice&gt;     &lt;xs:element name="ProgramContent" type="ProgramContent"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Content that is in the form of full length titles, epsiodes, movies, sports, newscasts, etc.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="NonProgramContent" type="NonProgramContent"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Content that is typically short in nature and is scheduled in breaks between the segments of a program such as commercials, promos, ids, etc.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:choice&gt;   &lt;xs:attribute name="timestamp" type="xs:dateTime"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;specifies the current date and time that is associated to the content at a specific location&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt;   &lt;xs:attribute name="user"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;the name of the user or computer associated to the content&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt;   &lt;/xs:attribute&gt;   &lt;xs:attribute name="sourceName"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;The name of the entity that originally provided the content&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt; </pre>					



	<pre> &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:minLength value="1"/&gt;     &lt;xs:maxLength value="255"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="contentExists" type="xs:boolean"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates whether the content exists at the location of the query: 1=Exists, 0=Does Not Exist&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="version"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A label to designate the content based on use or purpose&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:minLength value="1"/&gt;     &lt;xs:maxLength value="255"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="revisionId"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to indicate what revision value the content has&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:minLength value="1"/&gt;     &lt;xs:maxLength value="255"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	--

#### attribute **Content/@timestamp**

type	<b>xs:dateTime</b>
properties	isRef 0
annotation	documentation specifies the current date and time that is associated to the content at a specific location
source	<pre> &lt;xs:attribute name="timestamp" type="xs:dateTime"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;specifies the current date and time that is associated to the content at a specific location&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

### attribute **Content/@user**

type	restriction of <b>xs:string</b>
properties	isRef 0
facets	minLength 1 maxLength 255
annotation	documentation the name of the user or computer associated to the content
source	<pre> &lt;xs:attribute name="user"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;the name of the user or computer associated to the content&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

### attribute **Content/@sourceName**

type	restriction of <b>xs:string</b>
properties	isRef 0
facets	minLength 1 maxLength 255
annotation	documentation The name of the entity that originally provided the content
source	<pre> &lt;xs:attribute name="sourceName"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The name of the entity that originally provided the content&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

### attribute **Content/@contentExists**

type	<b>xs:boolean</b>
properties	isRef 0
annotation	Documentation Indicates whether the content exists at the location of the query: 1=Exists, 0=Does Not Exist
source	<pre> &lt;xs:attribute name="contentExists" type="xs:boolean"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates whether the content exists at the location of the query: 1=Exists, 0=Does Not Exist&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; </pre>

	</xs:attribute>
--	-----------------

#### attribute **Content/@version**

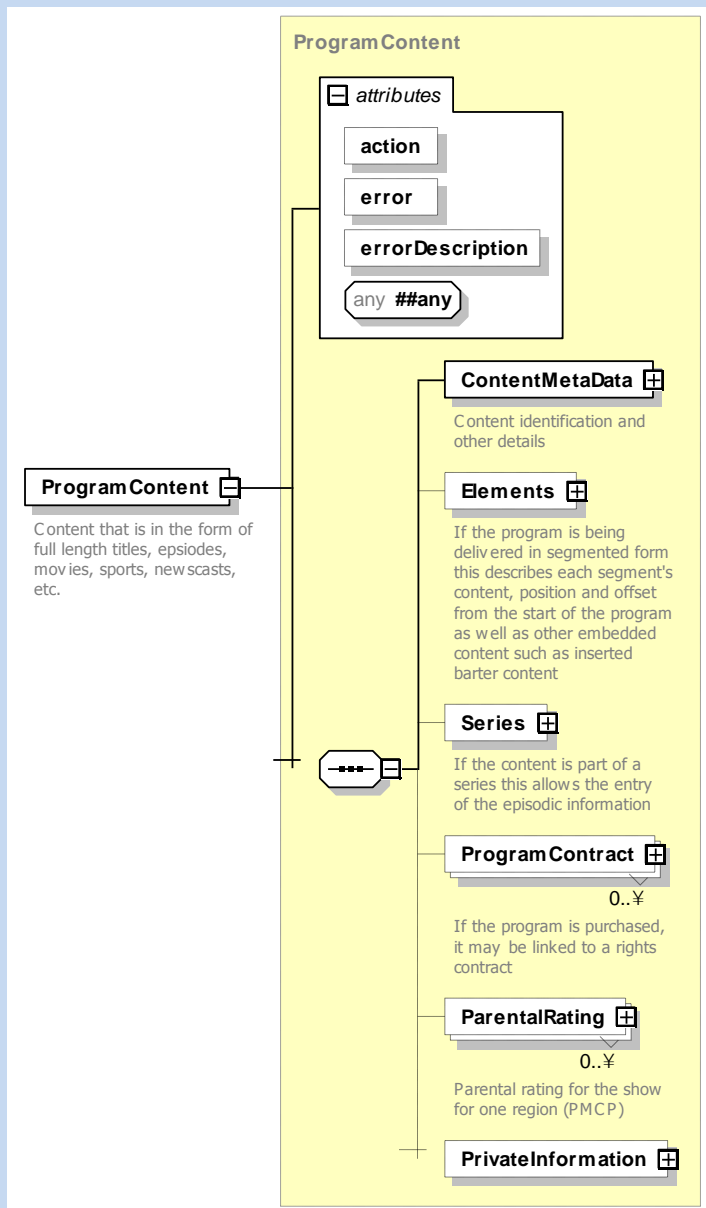
type	restriction of <b>xs:string</b>
properties	isRef 0
facets	minLength 1 maxLength 255
annotation	documentation A label to designate the content based on use or purpose
source	<pre> &lt;xs:attribute name="version"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A label to designate the content based on use or purpose&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **Content/@revisionId**

type	restriction of <b>xs:string</b>
properties	isRef 0
facets	minLength 1 maxLength 255
annotation	documentation Used to indicate what revision value the content has
source	<pre> &lt;xs:attribute name="revisionId"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to indicate what revision value the content has&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

# element **Content/ProgramContent**

diagram

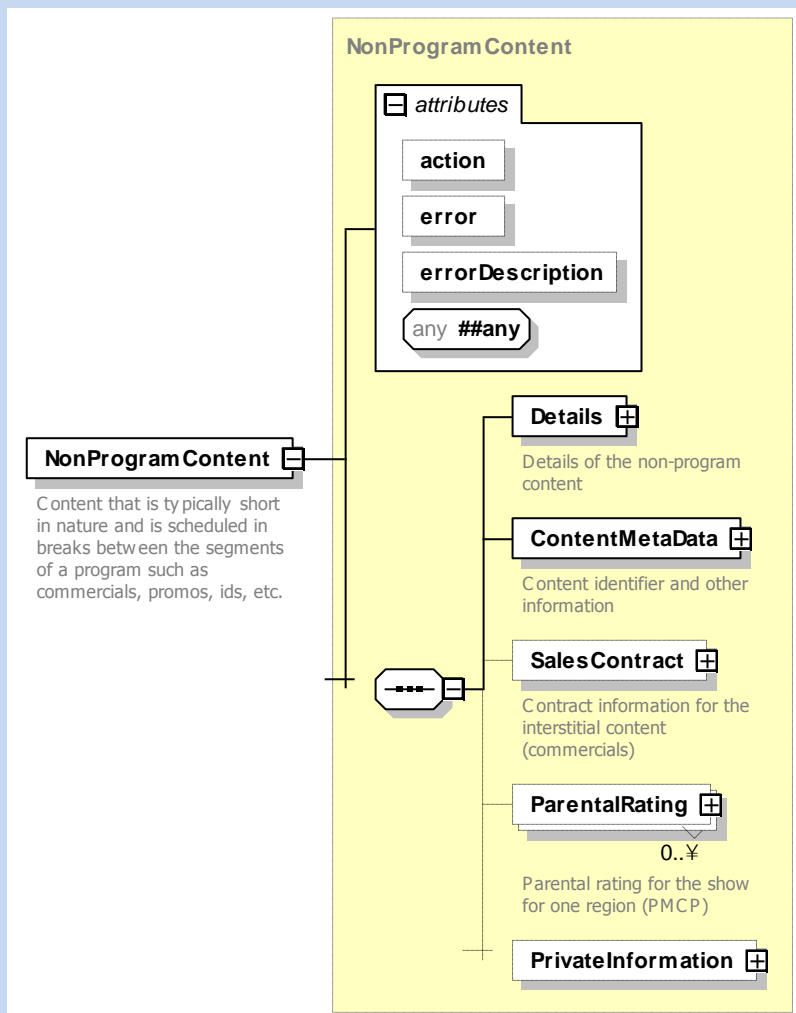


namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [ProgramContent](#)

properties	isRef content	0 complex				
children	<a href="#">ContentMetaData</a> <a href="#">Elements</a> <a href="#">Series</a> <a href="#">ProgramContract</a> <a href="#">ParentalRating</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Content that is in the form of full length titles, episodes, movies, sports, newscasts, etc.					
source	<pre>&lt;xs:element name="ProgramContent" type="ProgramContent"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Content that is in the form of full length titles, episodes, movies, sports, newscasts, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

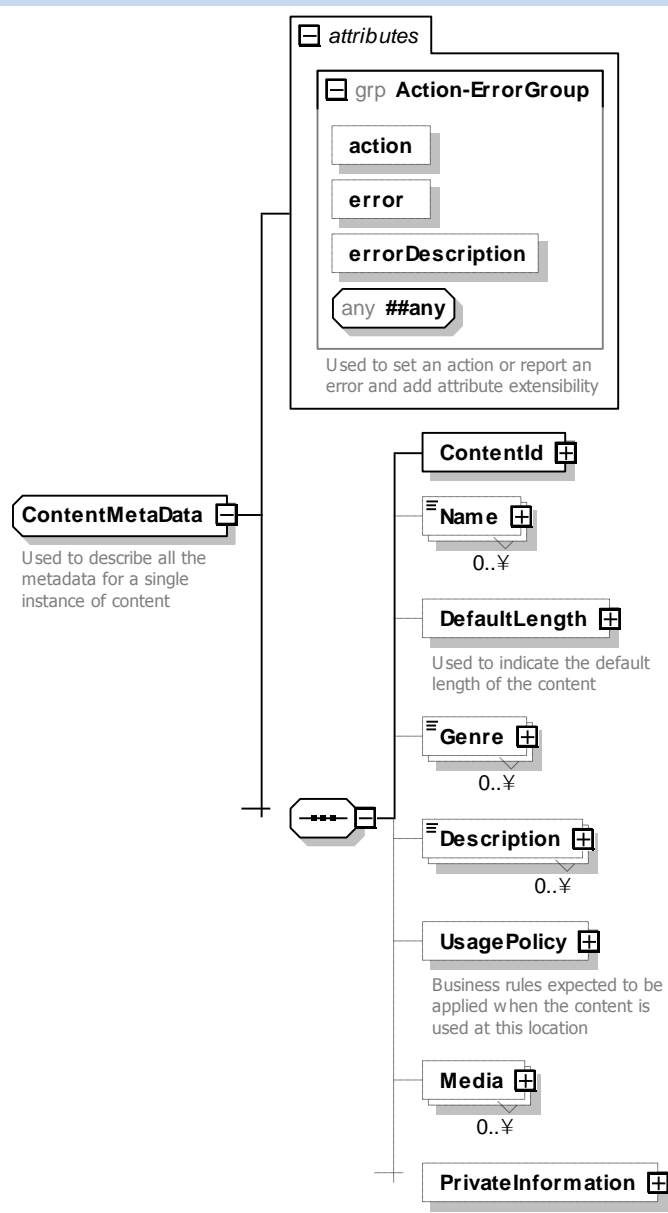
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">NonProgramContent</a>					
properties	isRef	0				
	content	complex				
children	<a href="#">Details</a> <a href="#">ContentMetaData</a> <a href="#">SalesContract</a> <a href="#">ParentalRating</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			

annotation	documentation Content that is typically short in nature and is scheduled in breaks between the segments of a program such as commercials, promos, ids, etc.
source	<pre> &lt;xs:element name="NonProgramContent" type="NonProgramContent"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Content that is typically short in nature and is scheduled in breaks between the segments of a program such as commercials, promos, ids, etc.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

diagram



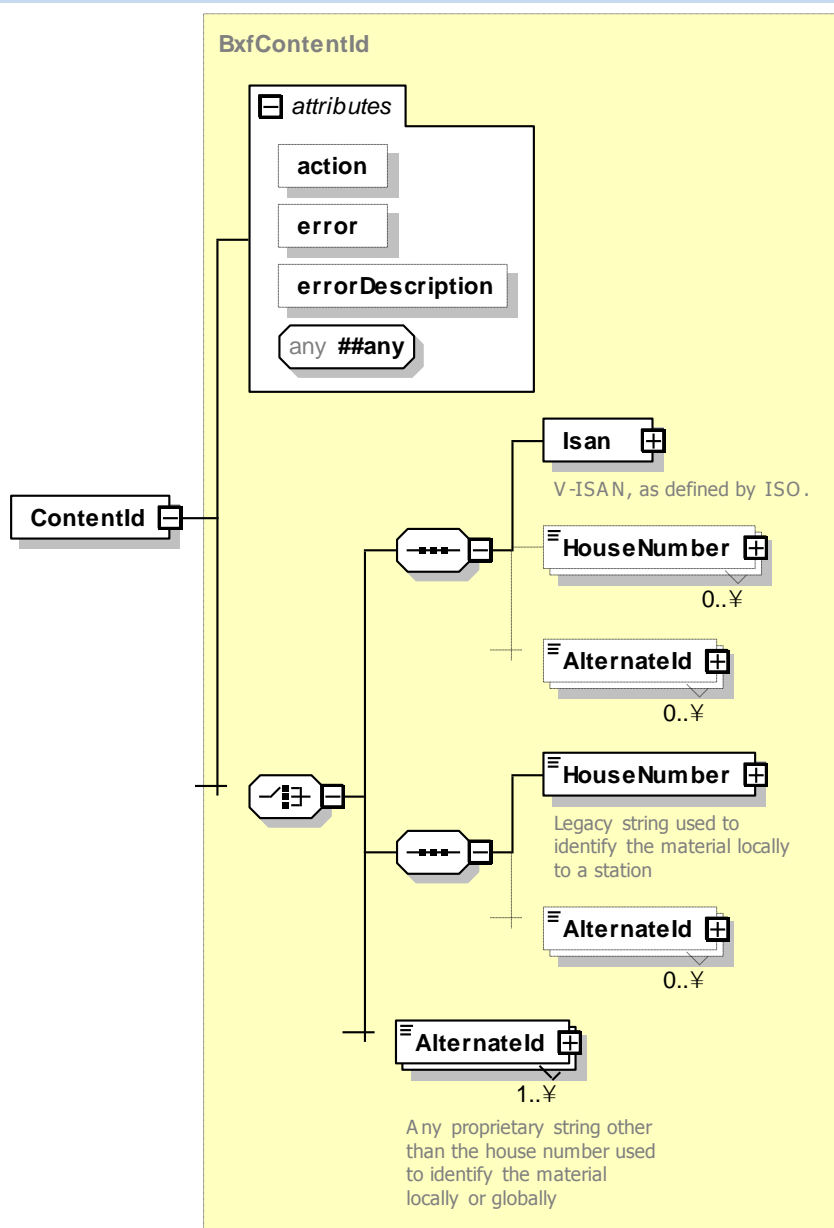
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [ContentId](#) [Name](#) [DefaultLength](#) [Genre](#) [Description](#) [UsagePolicy](#) [Media](#) [PrivateInformation](#)



used by	<a href="#">BasicAsRun/Content</a> <a href="#">ScheduledEvent/Content</a> <a href="#">ScheduledEvent/ScheduleElements/Content</a> <a href="#">NonProgramContent/ContentMetaData</a> <a href="#">ProgramContent/ContentMetaData</a> <a href="#">ProgramElement/ContentMetaData</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Used to describe all the metadata for a single instance of content					
source	<pre> &lt;xs:complexType name="ContentMetaData"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to describe all the metadata for a single instance of content&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="ContentId" type="BxfContentId"/&gt;     &lt;xs:element name="Name" type="BxfText" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xs:element name="DefaultLength" type="BxfDuration" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Used to indicate the default length of the content&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Genre" type="BxfText" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xs:element name="Description" type="BxfText" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xs:element name="UsagePolicy" type="UsagePolicy" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Business rules expected to be applied when the content is used at this location&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Media" type="Media" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>					

diagram

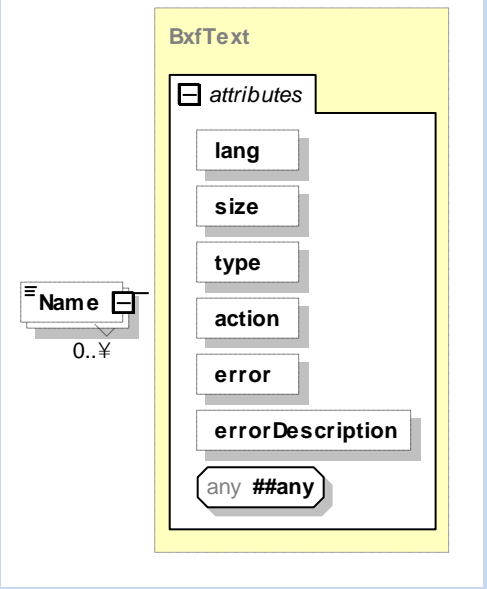


namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

type	<a href="#">BxfContentId</a>					
properties	isRef	0				
	content	complex				
children	<a href="#">Isan</a> <a href="#">HouseNumber</a> <a href="#">Alternateld</a> <a href="#">HouseNumber</a> <a href="#">Alternateld</a> <a href="#">Alternateld</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<xs:element name="ContentId" type="BxfContentId"/>					

element **ContentMetaData/Name**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			

source	<xs:element name="Name" type="BxfText" minOccurs="0" maxOccurs="unbounded"/>
--------	--

element ContentMetaData/DefaultLength

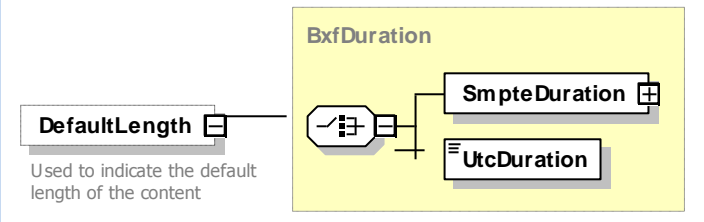
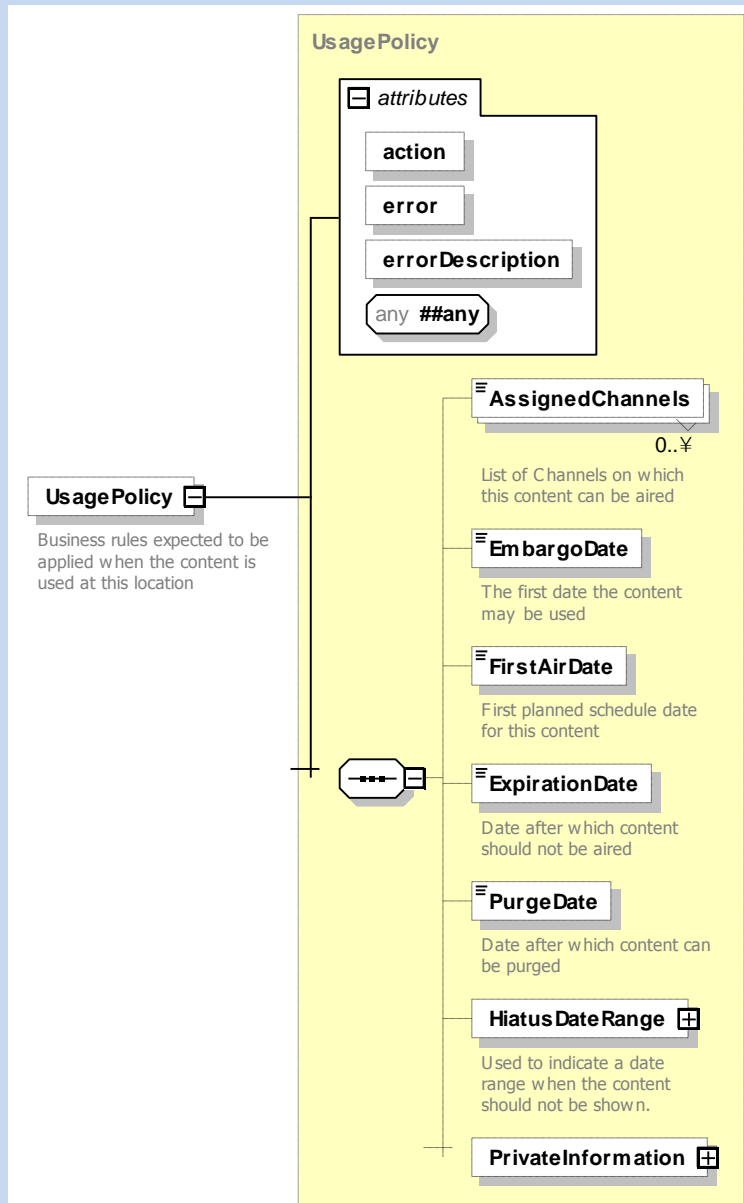
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfDuration</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">SmpteDuration</a> <a href="#">UtcDuration</a>
annotation	documentation Used to indicate the default length of the content
source	<xs:element name="DefaultLength" type="BxfDuration" minOccurs="0"> <xs:annotation> <xs:documentation>Used to indicate the default length of the content</xs:documentation> </xs:annotation> </xs:element>

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
source	<pre>&lt;xs:element name="Genre" type="BxfText" minOccurs="0" maxOccurs="unbounded"/&gt;</pre>					

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
source	<xs:element name="Description" type="BxfText" minOccurs="0" maxOccurs="unbounded"/>					

diagram



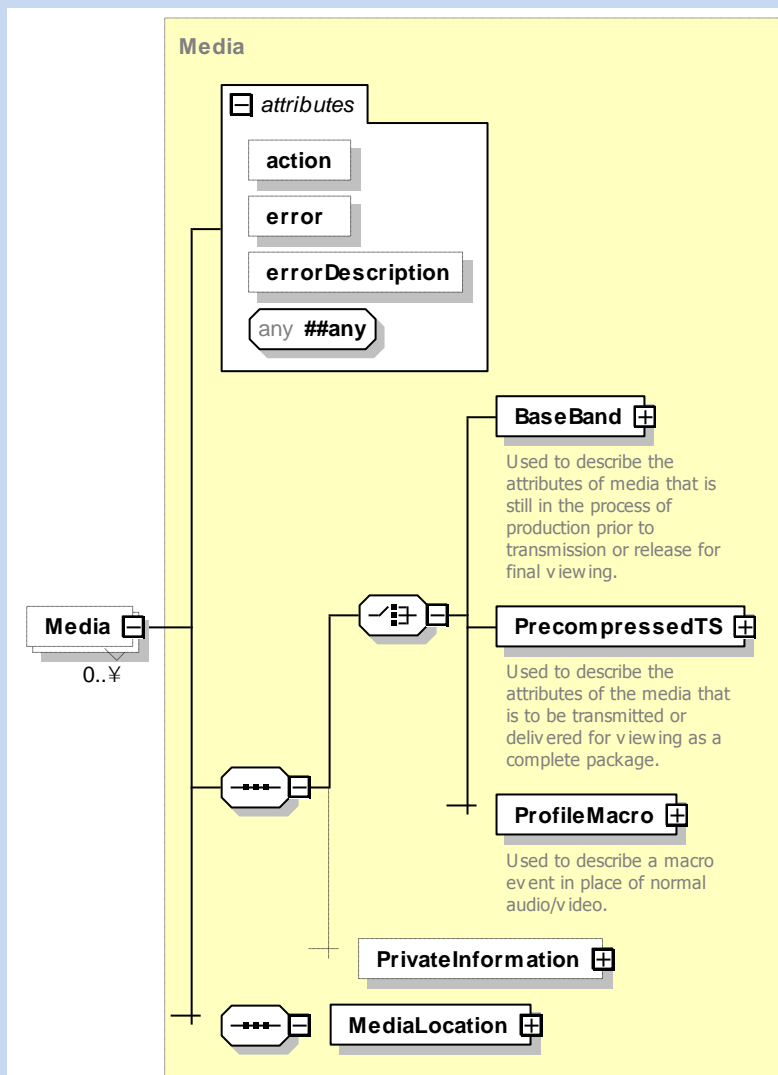
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [UsagePolicy](#)

properties	isRef0 minOcc0 maxOcc1 contentcomplex																								
children	<a href="#">AssignedChannels</a> <a href="#">EmbargoDate</a> <a href="#">FirstAirDate</a> <a href="#">ExpirationDate</a> <a href="#">PurgeDate</a> <a href="#">HiatusDateRange</a> <a href="#">PrivateInformation</a>																								
attributes	<table><tr><td>Name</td><td>Type</td><td>Use</td><td>Default</td><td>Fixed</td><td>annotation</td></tr><tr><td><a href="#">action</a></td><td><a href="#">pmcp:actionType</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">error</a></td><td><a href="#">BxfError</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">errorDescription</a></td><td><b>xs:string</b></td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional				<a href="#">error</a>	<a href="#">BxfError</a>	optional				<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
Name	Type	Use	Default	Fixed	annotation																				
<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional																							
<a href="#">error</a>	<a href="#">BxfError</a>	optional																							
<a href="#">errorDescription</a>	<b>xs:string</b>	optional																							
annotation	documentation Business rules expected to be applied when the content is used at this location																								
source	<xs:element name="UsagePolicy" type="UsagePolicy" minOccurs="0"> <xs:annotation> <xs:documentation>Business rules expected to be applied when the content is used at this location</xs:documentation> </xs:annotation> </xs:element>																								



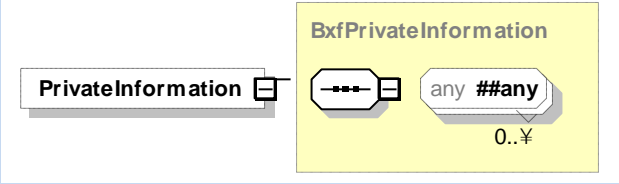
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">Media</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	unbounded	
	content	complex	
children	<a href="#">BaseBand</a> <a href="#">PrecompressedTS</a> <a href="#">ProfileMacro</a> <a href="#">PrivateInformation</a> <a href="#">MediaLocation</a>		

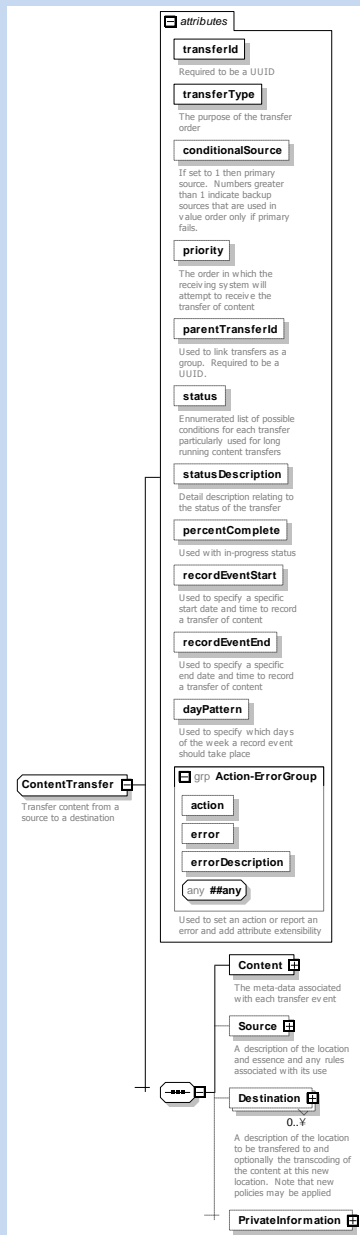
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="Media" type="Media" minOccurs="0" maxOccurs="unbounded"/>					

element **Content/MetaData/PrivateInformation**

diagram	 <p>The diagram shows a class-like box labeled 'PrivateInformation' with a small square icon on its right side. To its right is a yellow box labeled 'BxfPrivateInformation'. Inside this yellow box, there is a UML multiplicity notation: a rectangle containing 'any' and '##any', followed by '0..1'.</p>					
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfPrivateInformation</a>					
properties	isRef 0 minOcc 0 maxOcc 1 content complex					
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>					

# complexType **ContentTransfer**

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

children

[Content](#) [Source](#) [Destination](#) [PrivateInformation](#)



```

    <xs:documentation>Describes the essence and the location of the content</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="UsagePolicy" type="UsagePolicy" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Business rules expected to be applied when the content is used at this location</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Destination" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>A description of the location to be transferred to and optionally the transcoding of the content at this new location. Note that new policies may be
    applied</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Media" type="Media">
        <xs:annotation>
          <xs:documentation>Describes the essence and the new location of the content once transferred</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="UsagePolicy" type="UsagePolicy" minOccurs="0">
        <xs:annotation>
          <xs:documentation>Business rules expected to be applied when the content is used at this location</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="DestinationContentId" type="BxfContentId" minOccurs="0">
        <xs:annotation>
          <xs:documentation>If know, the system can specific the new contentId for the transferred content at the new location</xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
</xs:sequence>
<xs:attribute name="transferId" type="Uuid" use="required">
  <xs:annotation>
    <xs:documentation>Required to be a UUID</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="transferType" type="TransferType" use="required">
  <xs:annotation>
    <xs:documentation>The purpose of the transfer order</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="conditionalSource" type="xs:positiveInteger" default="1">
  <xs:annotation>
    <xs:documentation>If set to 1 then primary source. Numbers greater than 1 indicate backup sources that are used in value order only if primary
    fails.</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="priority" type="PriorityType" default="Normal">

```

```

<xs:annotation>
  <xs:documentation>The order in which the receiving system will attempt to receive the transfer of content</xs:documentation>
</xs:annotation>
</xs:attribute>
<xs:attribute name="parentTransferId" type="Uuid">
  <xs:annotation>
    <xs:documentation>Used to link transfers as a group. Required to be a UUID.</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="status" type="TransferStatusType">
  <xs:annotation>
    <xs:documentation>Enumerated list of possible conditions for each transfer particularly used for long running content transfers</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="statusDescription" type="xs:string">
  <xs:annotation>
    <xs:documentation>Detail description relating to the status of the transfer</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="percentComplete">
  <xs:annotation>
    <xs:documentation>Used with in-progress status</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:short">
      <xs:minInclusive value="0"/>
      <xs:maxInclusive value="100"/>
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
<xs:attribute name="recordEventStart" type="xs:dateTime">
  <xs:annotation>
    <xs:documentation>Used to specify a specific start date and time to record a transfer of content</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="recordEventEnd" type="xs:dateTime">
  <xs:annotation>
    <xs:documentation>Used to specify a specific end date and time to record a transfer of content</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="dayPattern" type="DayPattern">
  <xs:annotation>
    <xs:documentation>Used to specify which days of the week a record event should take place</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>

```

attribute **ContentTransfer/@transferId**

type	<a href="#">Uuid</a>
properties	isRef 0 use required

facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}
annotation	documentation Required to be a UUID
source	<pre>&lt;xs:attribute name="transferId" type="Uuid" use="required"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;Required to be a UUID&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute ContentTransfer/@transferType

type	<a href="#">TransferType</a>
properties	isRef 0 use required
facets	enumeration Recording enumeration Duplication enumeration File transfer enumeration Purge
annotation	documentation The purpose of the transfer order
source	<pre>&lt;xs:attribute name="transferType" type="TransferType" use="required"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;The purpose of the transfer order&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute ContentTransfer/@conditionalSource

type	xs:positiveInteger
properties	isRef 0 default 1
annotation	documentation If set to 1 then primary source. Numbers greater than 1 indicate backup sources that are used in value order only if primary fails.
source	<pre>&lt;xs:attribute name="conditionalSource" type="xs:positiveInteger" default="1"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;If set to 1 then primary source. Numbers greater than 1 indicate backup sources that are used in value order only if primary fails.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute ContentTransfer/@priority

type	<a href="#">PriorityType</a>
properties	isRef 0 default Normal
facets	enumeration Deferred enumeration Urgent enumeration High enumeration Normal

	enumeration Low
annotation	documentation The order in which the receiving system will attempt to receive the transfer of content
source	<pre>&lt;xs:attribute name="priority" type="PriorityType" default="Normal"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;The order in which the receiving system will attempt to receive the transfer of content&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute ContentTransfer/@parentTransferId

type	<a href="#">Uuid</a>
properties	isRef 0
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}
annotation	documentation Used to link transfers as a group. Required to be a UUID.
source	<pre>&lt;xs:attribute name="parentTransferId" type="Uuid"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;Used to link transfers as a group. Required to be a UUID.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute ContentTransfer/@status

type	<a href="#">TransferStatusType</a>
properties	isRef 0
facets	enumeration Unknown enumeration Failed enumeration Completed enumeration Inprogress enumeration Pending
annotation	documentation Enumerated list of possible conditions for each transfer particularly used for long running content transfers
source	<pre>&lt;xs:attribute name="status" type="TransferStatusType"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;Enumerated list of possible conditions for each transfer particularly used for long running content transfers&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute ContentTransfer/@statusDescription

type	xs:string
properties	isRef 0
annotation	documentation Detail description relating to the status of the transfer



source	<pre>&lt;xs:attribute name="statusDescription" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Detail description relating to the status of the transfer&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>
--------	---

#### attribute **ContentTransfer/@percentComplete**

type	restriction of <b>xs:short</b>
properties	isRef 0
facets	minInclusive 0 maxInclusive 100
annotation	documentation Used with in-progress status
source	<pre>&lt;xs:attribute name="percentComplete"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used with in-progress status&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:short"&gt;       &lt;xs:minInclusive value="0"/&gt;       &lt;xs:maxInclusive value="100"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt;</pre>

#### attribute **ContentTransfer/@recordEventStart**

type	<b>xs:dateTime</b>
properties	isRef 0
annotation	documentation Used to specify a specific start date and time to record a transfer of content
source	<pre>&lt;xs:attribute name="recordEventStart" type="xs:dateTime"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to specify a specific start date and time to record a transfer of content&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

#### attribute **ContentTransfer/@recordEventEnd**

type	<b>xs:dateTime</b>
properties	isRef 0
annotation	documentation Used to specify a specific end date and time to record a transfer of content
source	<pre>&lt;xs:attribute name="recordEventEnd" type="xs:dateTime"&gt;   &lt;xs:annotation&gt;</pre>

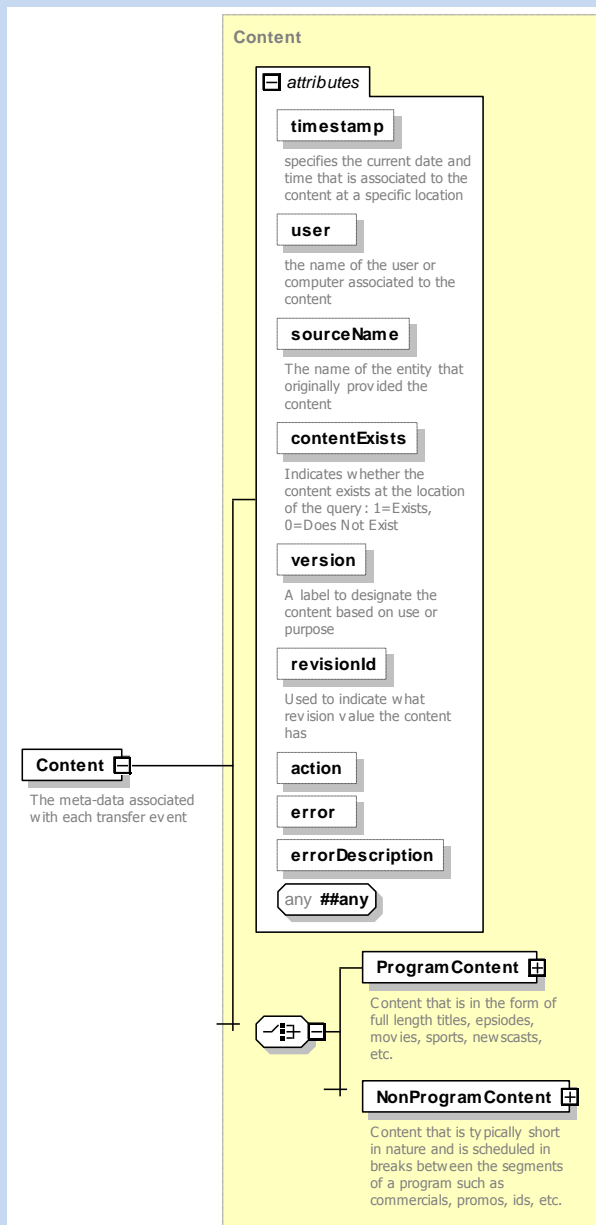
	<xs:documentation>Used to specify a specific end date and time to record a transfer of content</xs:documentation> </xs:annotation> </xs:attribute>
--	--

attribute **ContentTransfer/@dayPattern**

type	<a href="#">DayPattern</a>
properties	isRef        0
facets	length        7 pattern        [0,1]{7}
annotation	documentation Used to specify which days of the week a record event should take place
source	<xs:attribute name="dayPattern" type="DayPattern"> <xs:annotation> <xs:documentation>Used to specify which days of the week a record event should take place</xs:documentation> </xs:annotation> </xs:attribute>

# element **ContentTransfer/Content**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [Content](#)

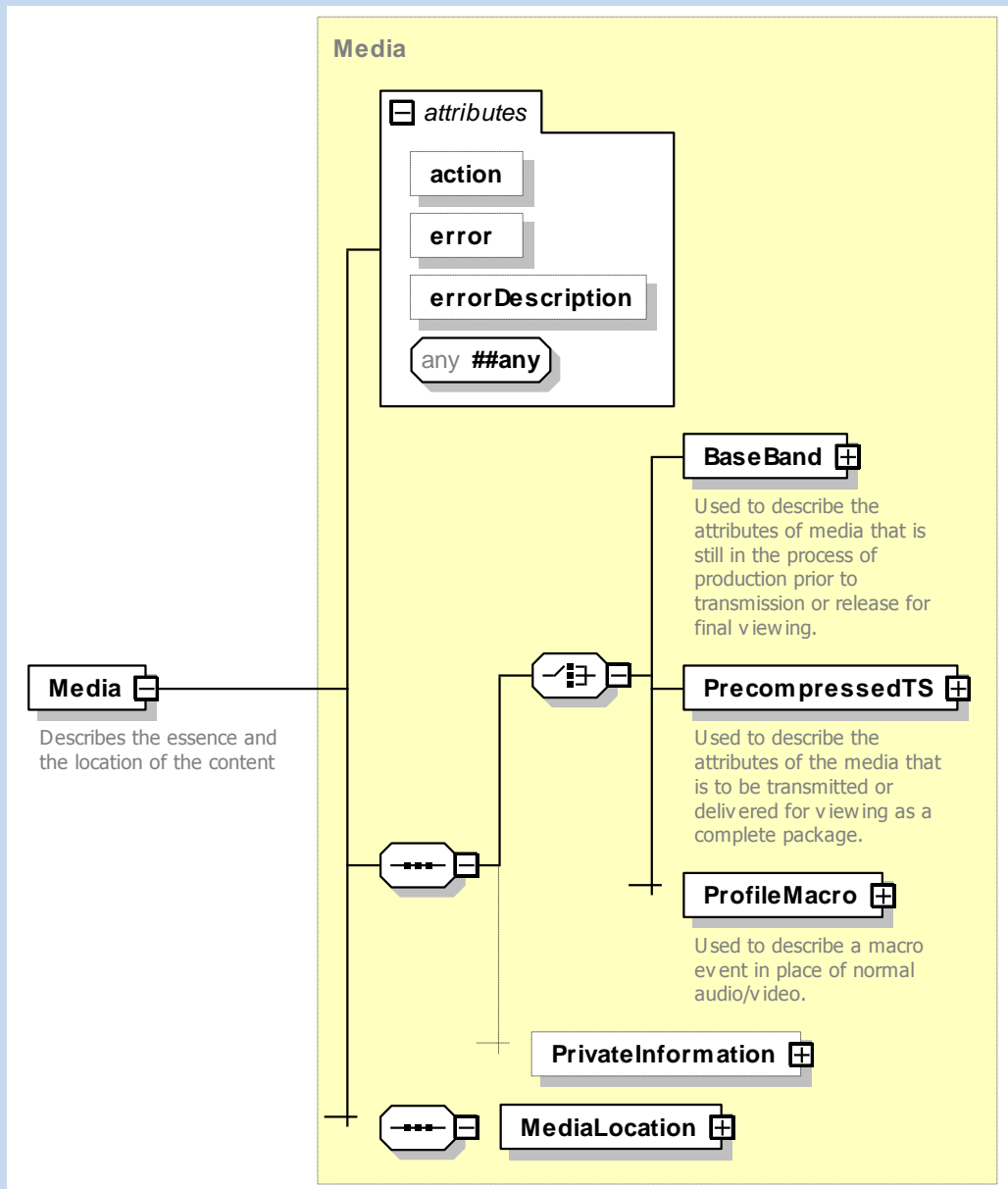
properties	isRef content	0 complex				
children	<a href="#">ProgramContent</a> <a href="#">NonProgramContent</a>					
attributes	Name <a href="#">timestamp</a>  <a href="#">user</a> <a href="#">sourceName</a> <a href="#">contentExists</a>  <a href="#">version</a> <a href="#">revisionId</a> <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <b>xs:dateTime</b>  <b>derived by:</b> <b>xs:string</b> <b>derived by:</b> <b>xs:string</b> <b>xs:boolean</b>  <b>derived by:</b> <b>xs:string</b> <b>derived by:</b> <b>xs:string</b> <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use          optional optional optional	Default	Fixed	annotation documentation specifies the current date and time that is associated to the content at a specific location documentation the name of the user or computer associated to the content documentation The name of the entity that originally provided the content documentation Indicates whether the content exists at the location of the query: 1=Exists, 0=Does Not Exist documentation A label to designate the content based on use or purpose documentation Used to indicate what revision value the content has
annotation	documentation The meta-data associated with each transfer event					
source	<pre>&lt;xs:element name="Content" type="Content"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The meta-data associated with each transfer event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

## element ContentTransfer/Source

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">Media</a> <a href="#">UsagePolicy</a>
annotation	documentation A description of the location and essence and any rules associated with its use

source	<pre> &lt;xs:element name="Source" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A description of the location and essence and any rules associated with its use&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Media" type="Media"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Describes the essence and the location of the content&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="UsagePolicy" type="UsagePolicy" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Business rules expected to be applied when the content is used at this location&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--------	---

diagram



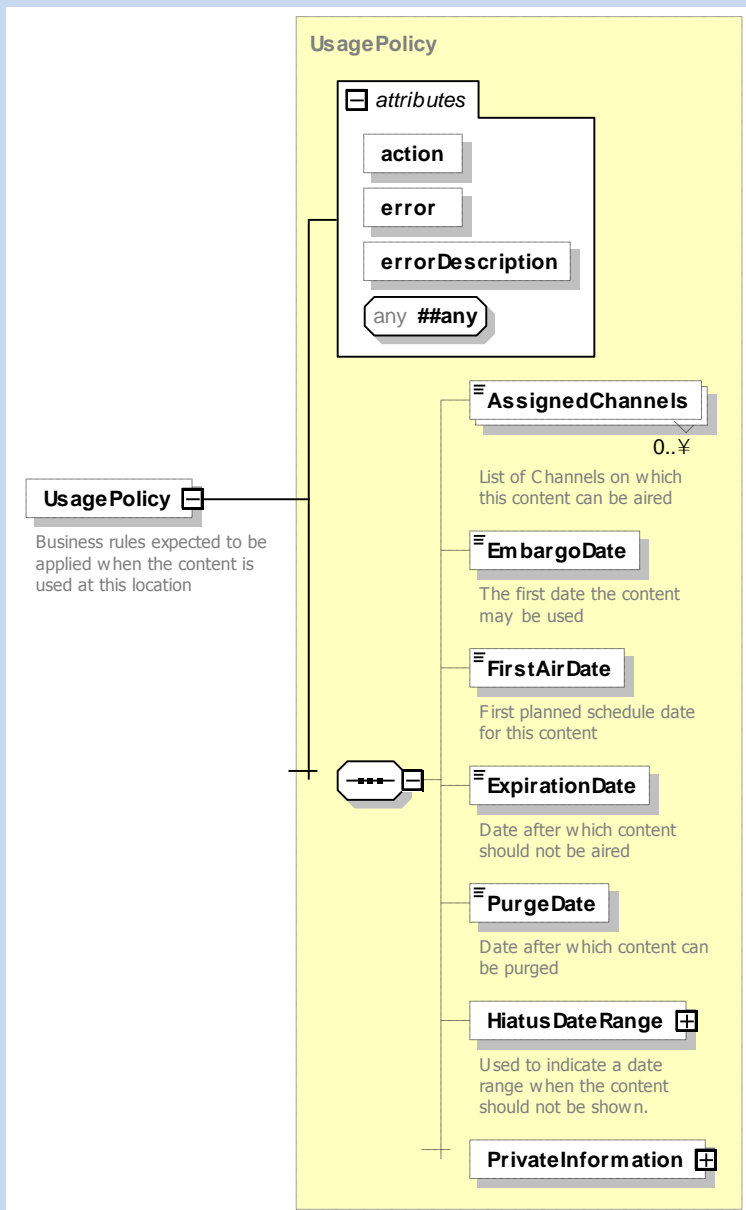
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [Media](#)

properties	isRef content	0 complex				
children	<a href="#">BaseBand</a> <a href="#">PrecompressedTS</a> <a href="#">ProfileMacro</a> <a href="#">PrivateInformation</a> <a href="#">MediaLocation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Describes the essence and the location of the content					
source	<xs:element name="Media" type="Media"> <xs:annotation> <xs:documentation>Describes the essence and the location of the content</xs:documentation> </xs:annotation> </xs:element>					

# element **ContentTransfer/Source/UsagePolicy**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [UsagePolicy](#)



properties	isRef minOcc maxOcc content	0 0 1 complex
children	<a href="#">AssignedChannels</a> <a href="#">EmbargoDate</a> <a href="#">FirstAirDate</a> <a href="#">ExpirationDate</a> <a href="#">PurgeDate</a> <a href="#">HiatusDateRange</a> <a href="#">PrivateInformation</a>	
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>
annotation	documentation Business rules expected to be applied when the content is used at this location	
source	<pre>&lt;xs:element name="UsagePolicy" type="UsagePolicy" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Business rules expected to be applied when the content is used at this location&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>	

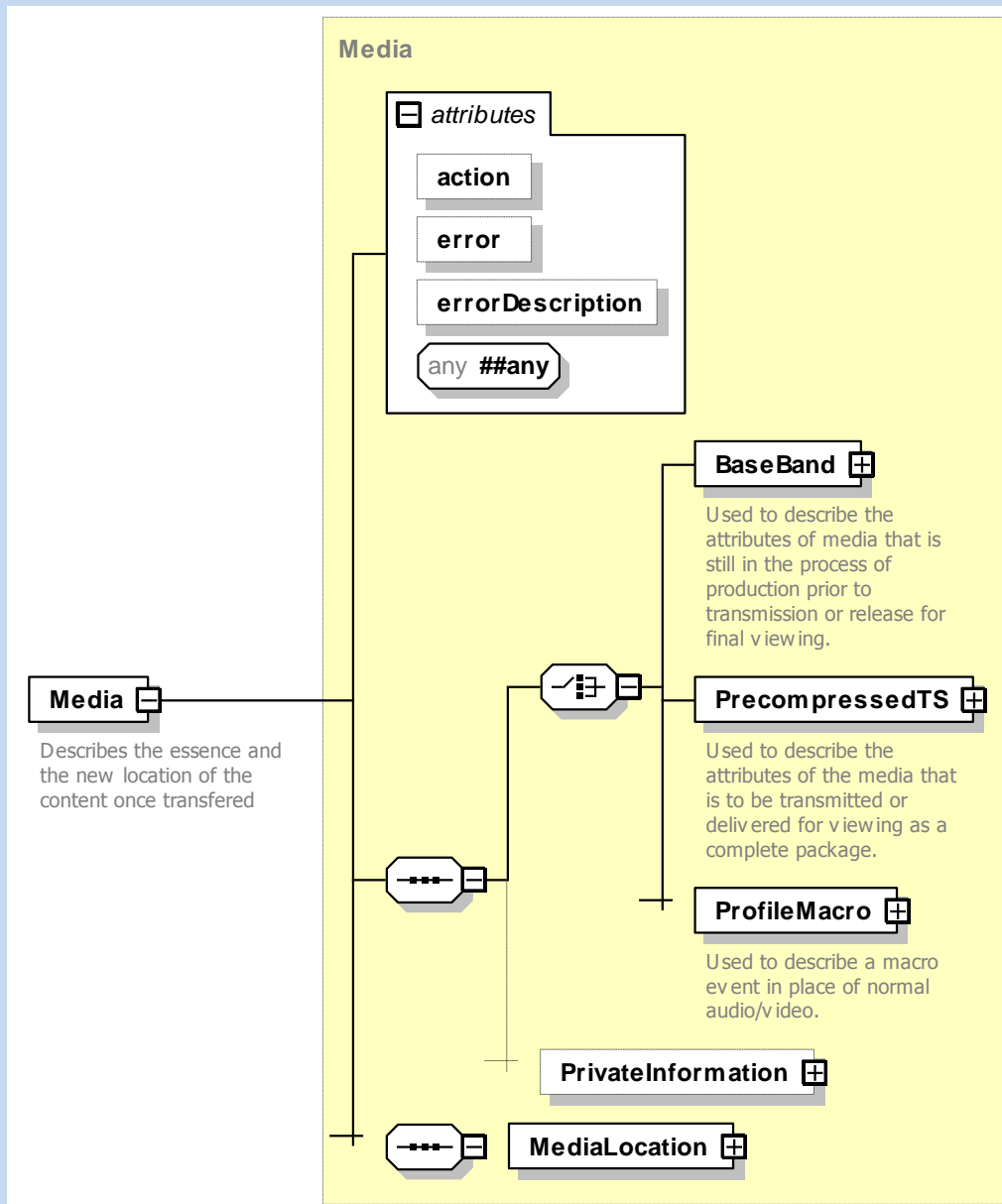
## element ContentTransfer/Destination

diagram	<pre> classDiagram     class Destination {         0..1     }     class Media {     }     class UsagePolicy {     }     class DestinationContentId {     }     Destination "0..1" -- "1" Media     Destination "0..1" -- "1" UsagePolicy     Destination "0..1" -- "1" DestinationContentId   </pre> <p><b>Destination</b> 0..1 A description of the location to be transferred to and optionally the transcoding of the content at this new location. Note that new policies may be applied</p> <p><b>Media</b> Describes the essence and the new location of the content once transferred</p> <p><b>UsagePolicy</b> Business rules expected to be applied when the content is used at this location</p> <p><b>DestinationContentId</b> If know, the system can specific the new contentId for the transfered content at the new location</p>	
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>	
properties	isRef minOcc maxOcc content	0 0 unbounded complex
children	<a href="#">Media</a> <a href="#">UsagePolicy</a> <a href="#">DestinationContentId</a>	
annotation	documentation A description of the location to be transferred to and optionally the transcoding of the content at this new location. Note that new policies may be applied	
source	<pre>&lt;xs:element name="Destination" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A description of the location to be transferred to and optionally the transcoding of the content at this new location. Note that new policies may be applied&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;</pre>	

	<pre> &lt;xs:complexType&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Media" type="Media"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Describes the essence and the new location of the content once transfered&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="UsagePolicy" type="UsagePolicy" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Business rules expected to be applied when the content is used at this location&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="DestinationContentId" type="BxfContentId" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;If know, the system can specific the new contentId for the transfered content at the new location&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	---

# element **ContentTransfer/Destination/Media**

diagram



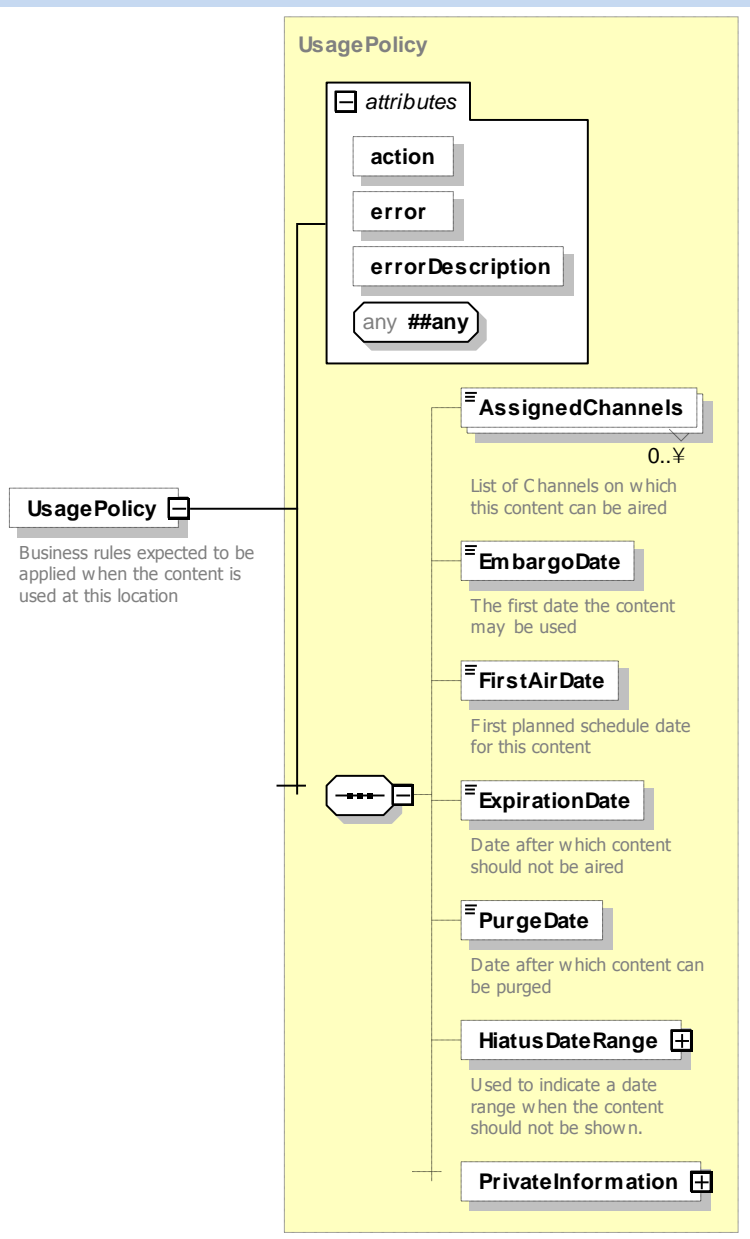
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [Media](#)

properties	isRef content	0 complex				
children	<a href="#">BaseBand</a> <a href="#">PrecompressedTS</a> <a href="#">ProfileMacro</a> <a href="#">PrivateInformation</a> <a href="#">MediaLocation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Describes the essence and the new location of the content once transfered					
source	<pre>&lt;xs:element name="Media" type="Media"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Describes the essence and the new location of the content once transfered&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

# element **ContentTransfer/Destination/UsagePolicy**

diagram



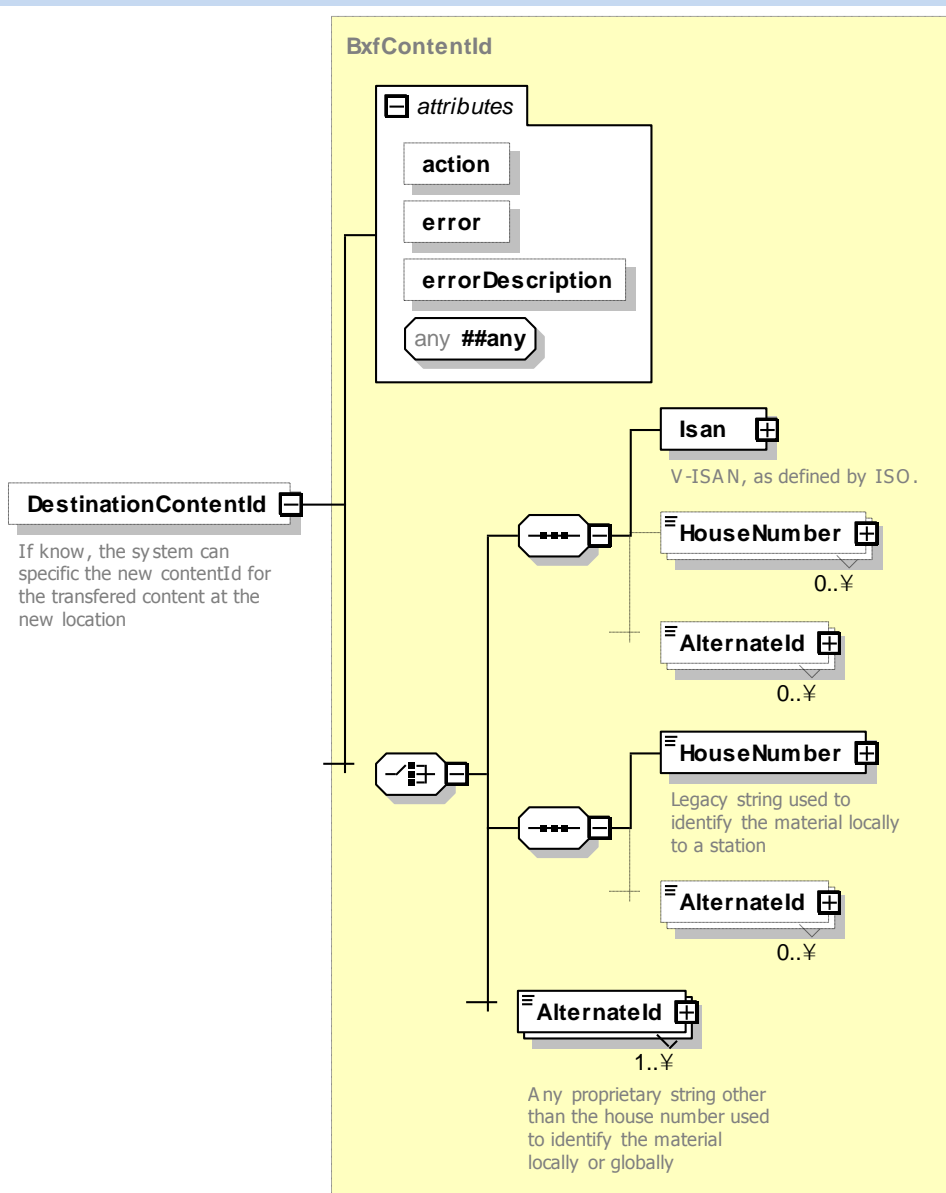
namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

type	<a href="#">UsagePolicy</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
children	<a href="#">AssignedChannels</a> <a href="#">EmbargoDate</a> <a href="#">FirstAirDate</a> <a href="#">ExpirationDate</a> <a href="#">PurgeDate</a> <a href="#">HiatusDateRange</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation Business rules expected to be applied when the content is used at this location					
source	<pre>&lt;xs:element name="UsagePolicy" type="UsagePolicy" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Business rules expected to be applied when the content is used at this location&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

element **ContentTransfer/Destination/DestinationContentId**

diagram

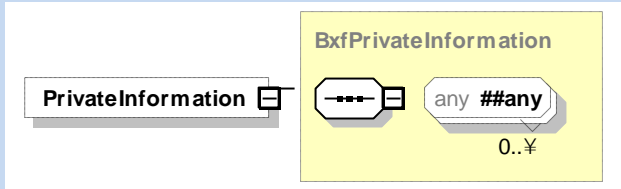


namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

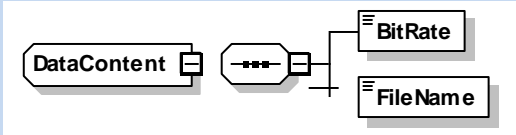
type [BxfContentId](#)

properties	isRef minOcc maxOcc content	0 0 1 complex				
children	<a href="#">Isan</a> <a href="#">HouseNumber</a> <a href="#">Alternateld</a> <a href="#">HouseNumber</a> <a href="#">Alternateld</a> <a href="#">Alternateld</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation If know, the system can specific the new contentId for the transfered content at the new location					
source	<pre>&lt;xs:element name="DestinationContentId" type="BxfContentId" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If know, the system can specific the new contentId for the transfered content at the new location&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

### element ContentTransfer/PrivateInformation

diagram			
namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">BxfPrivateInformation</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	complex	
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>		


### complexType DataContent

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
children	<a href="#">BitRate</a> <a href="#">FileName</a>					
used by	element	<a href="#">BaseMedia/PrecompressedTS/TSDData/DataContent</a>				




source	<pre> &lt;xs:complexType name="DataContent"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="BitRate" type="xs:positiveInteger"/&gt;     &lt;xs:element name="FileName"&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:minLength value="1"/&gt;           &lt;xs:maxLength value="255"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>
--------	--

#### element DataContent/BitRate

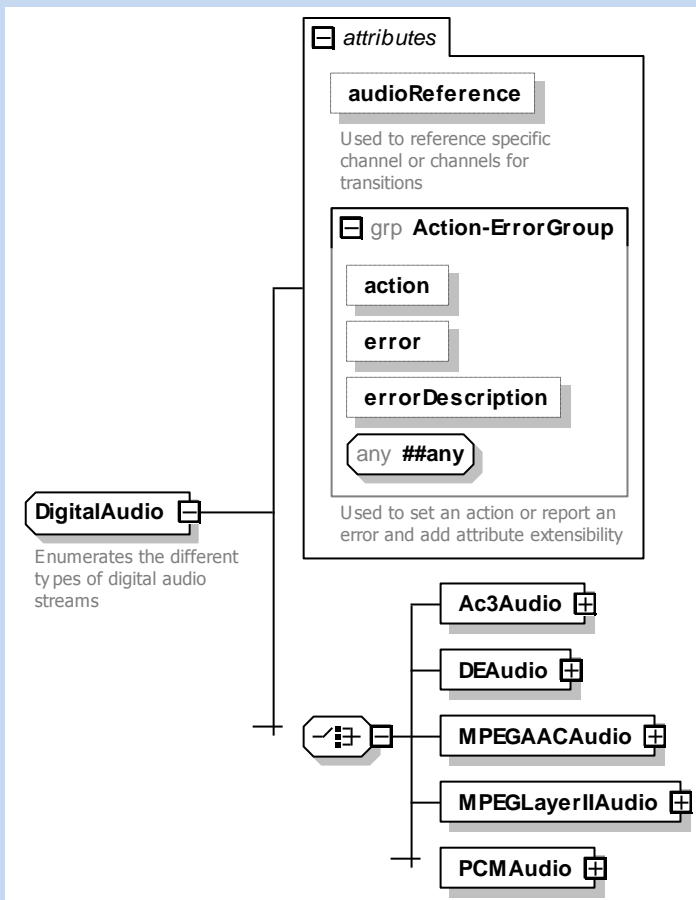
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:positiveInteger</b>
properties	isRef        0 content      simple
source	<pre>&lt;xs:element name="BitRate" type="xs:positiveInteger"/&gt;</pre>

#### element DataContent/FileName

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
properties	isRef        0 content      simple
facets	minLength    1 maxLength    255
source	<pre> &lt;xs:element name="FileName"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

# complexType DigitalAudio

diagram



namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>					
children	<a href="#">Ac3Audio</a> <a href="#">DEAudio</a> <a href="#">MPEGAACAudio</a> <a href="#">MPEGLayerIIAudio</a> <a href="#">PCMAudio</a>					
used by	elements	<a href="#">Audio/DigitalAudio</a> <a href="#">TSAudio/DigitalAudio</a>				
attributes	Name <a href="#">audioReference</a>	Type <b>xs:positiveInteger</b>	Use optional	Default	Fixed	annotation documentation Used to reference specific channel or channels for transitions
	<a href="#">action</a>	<b>pmcp:actionType</b>	optional			
	<a href="#">error</a>	<b>BxfError</b>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation Enumerates the different types of digital audio streams					
source	<pre>&lt;xs:complexType name="DigitalAudio"&gt;   &lt;xs:annotation&gt;</pre>					

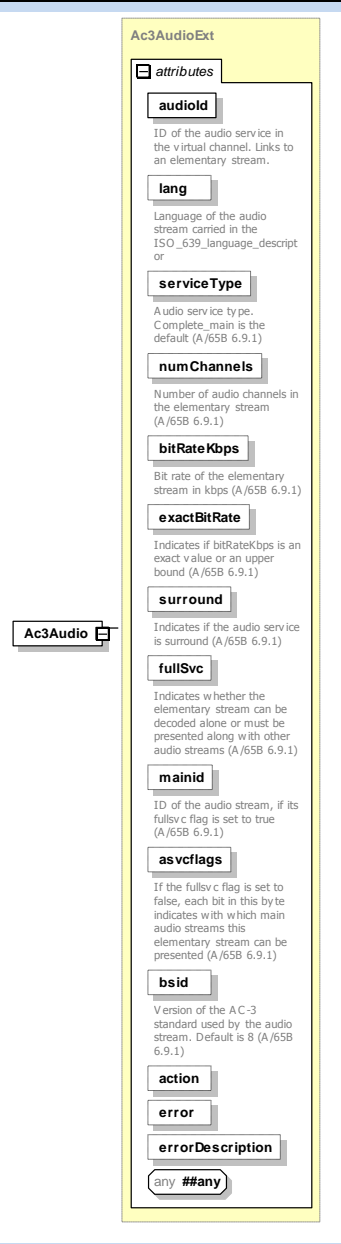
	<pre>&lt;xs:documentation&gt;Enumerates the different types of digital audio streams&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:choice&gt;   &lt;xs:element name="Ac3Audio" type="Ac3AudioExt"/&gt;   &lt;xs:element name="DEAudio" type="DigitalAudioAttribute"/&gt;   &lt;xs:element name="MPEGAACAudio" type="DigitalAudioAttribute"/&gt;   &lt;xs:element name="MPEGLayerIIAudio" type="DigitalAudioAttribute"/&gt;   &lt;xs:element name="PCMAudio"&gt;     &lt;xs:complexType&gt;       &lt;xs:attribute name="exactBitRate" type="xs:boolean" use="optional"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Indicates if bitRateKbps is an exact value or an upper bound (A/65)&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:attribute&gt;     &lt;/xs:complexType&gt;   &lt;/xs:element&gt; &lt;/xs:choice&gt; &lt;xs:attribute name="audioReference" type="xs:positiveInteger"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to reference specific channel or channels for transitions&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt;</pre>
--	---

attribute **DigitalAudio/@audioReference**

type	<b>xs:positiveInteger</b>
properties	isRef 0
annotation	documentation Used to reference specific channel or channels for transitions
source	<pre>&lt;xs:attribute name="audioReference" type="xs:positiveInteger"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to reference specific channel or channels for transitions&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

element **DigitalAudio/Ac3Audio**

diagram



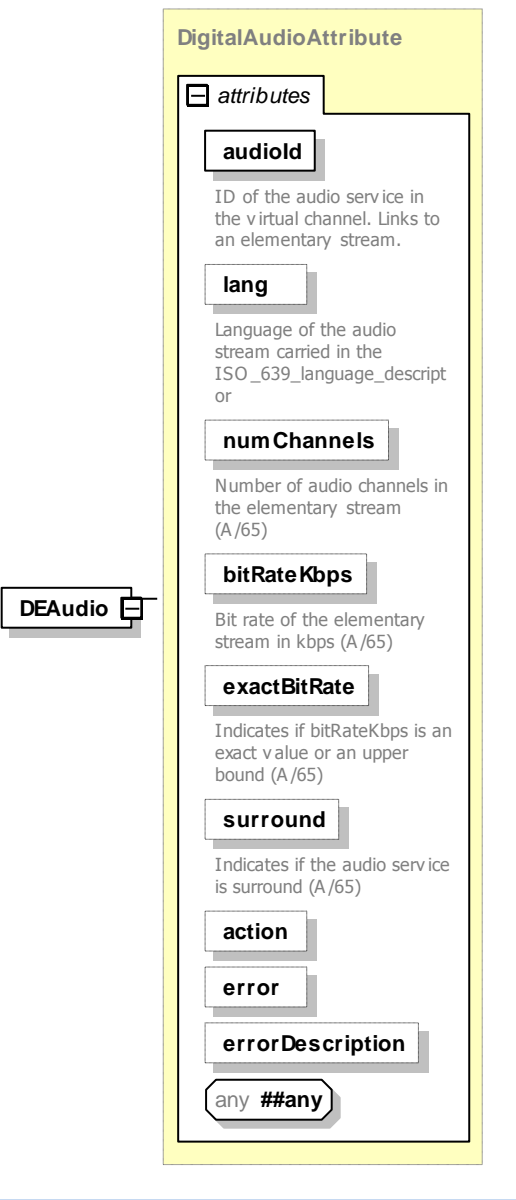
namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

type	<a href="#">Ac3AudioExt</a>					
properties	isRef content	0 complex				
attributes	Name <a href="#">audiold</a>	Type <a href="#">pmcp:audioldType</a>	Use required	Default	Fixed	annotation documentation ID of the audio service in the virtual channel. Links to an elementary stream.
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>	optional			documentation Language of the audio stream carried in the ISO_639_language_descriptor
	<a href="#">serviceType</a>	<a href="#">pmcp:audioServiceType</a>	optional	complete_main		documentation Audio service type. Complete_main is the default (A/65B 6.9.1)
	<a href="#">numChannels</a>	<a href="#">pmcp:numChannelsType</a>	optional	2/0		documentation Number of audio channels in the elementary stream (A/65B 6.9.1)
	<a href="#">bitRateKbps</a>	<a href="#">pmcp:bitRateKbpsType</a>	optional	448		documentation Bit rate of the elementary stream in kbps (A/65B 6.9.1)
	<a href="#">exactBitRate</a>	xs:boolean	optional	false		documentation Indicates if bitRateKbps is an exact value or an upper bound (A/65B 6.9.1)
	<a href="#">surround</a>	xs:boolean	optional			documentation Indicates if the audio service is surround (A/65B 6.9.1)
	<a href="#">fullSvc</a>	xs:boolean	optional	true		documentation Indicates whether the elementary stream can be decoded alone or must be presented along with other audio streams (A/65B 6.9.1)
	<a href="#">mainid</a>	<a href="#">pmcp:mainidType</a>	optional			documentation ID of the audio stream, if its fullsvc flag is set to true (A/65B 6.9.1)
	<a href="#">asvcflags</a>	xs:unsignedByte	optional			documentation If the fullsvc flag is set to false, each bit in this byte indicates with which main audio streams this elementary stream can be presented (A/65B 6.9.1)
	<a href="#">bsid</a>	<a href="#">pmcp:bsidType</a>	optional	8		documentation Version of the AC-3 standard used by the audio stream. Default is 8 (A/65B 6.9.1)
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="Ac3Audio" type="Ac3AudioExt"/>					

element **DigitalAudio/DEAudio**

diagram

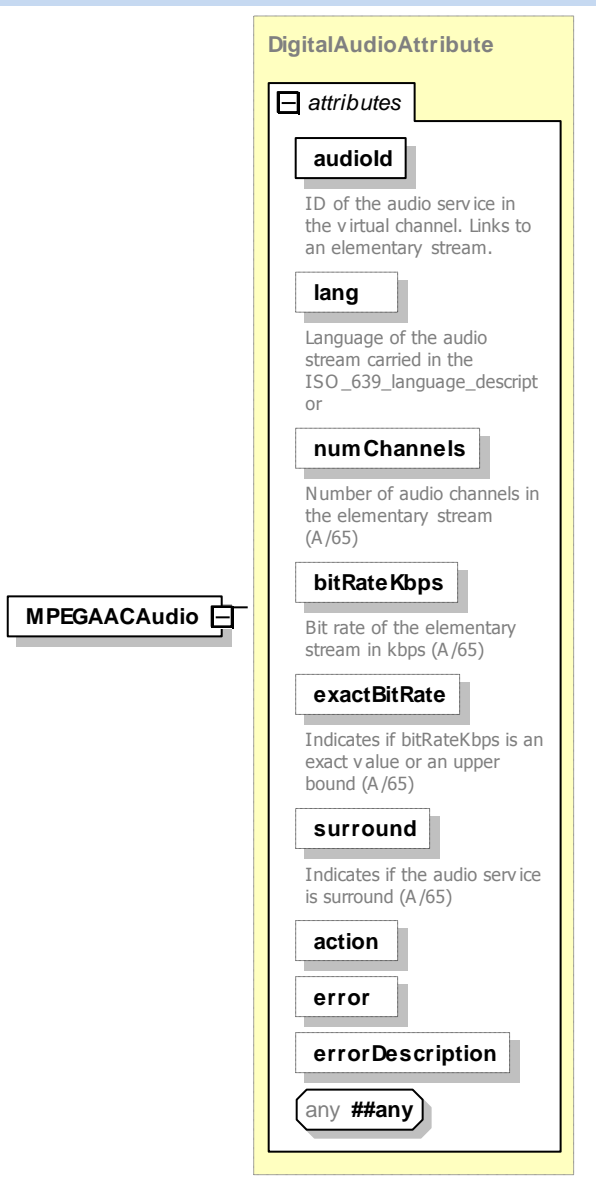


namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">DigitalAudioAttribute</a>

properties	isRef content	0 complex				
attributes	Name <a href="#">audiold</a>	Type <a href="#">pmcp:audioldType</a>	Use required	Default	Fixed	annotation documentation ID of the audio service in the virtual channel. Links to an elementary stream.
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>	optional			documentation Language of the audio stream carried in the ISO_639_language_descriptor
	<a href="#">numChannels</a>	<a href="#">pmcp:numChannelsType</a>	optional	2/0		documentation Number of audio channels in the elementary stream (A/65)
	<a href="#">bitRateKbps</a>	<a href="#">pmcp:bitRateKbpsType</a>	optional			documentation Bit rate of the elementary stream in kbps (A/65)
	<a href="#">exactBitRate</a>	<b>xs:boolean</b>	optional			documentation Indicates if bitRateKbps is an exact value or an upper bound (A/65)
	<a href="#">surround</a>	<b>xs:boolean</b>	optional			documentation Indicates if the audio service is surround (A/65)
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<xs:element name="DEAudio" type="DigitalAudioAttribute"/>					

element **DigitalAudio/MPEGAACAudio**

diagram



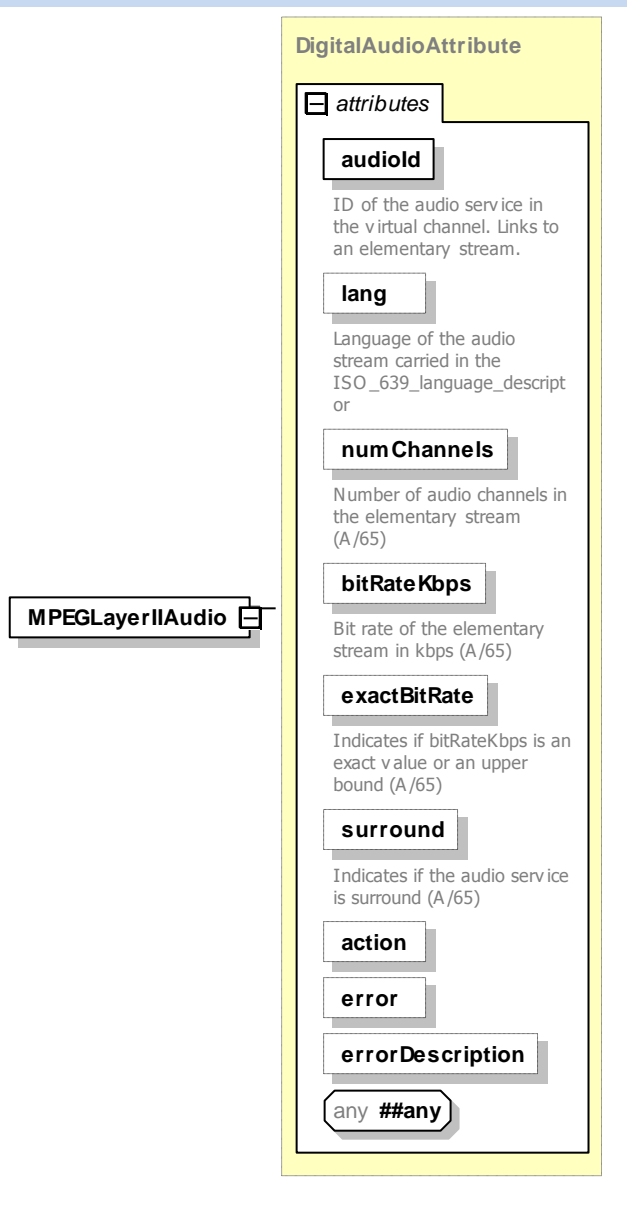
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>
type	<a href="#">DigitalAudioAttribute</a>



properties	isRef content	0 complex				
attributes	Name <a href="#">audiold</a>	Type <a href="#">pmcp:audioldType</a>	Use required	Default	Fixed	annotation documentation ID of the audio service in the virtual channel. Links to an elementary stream.
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>	optional			documentation Language of the audio stream carried in the ISO_639_language_descriptor
	<a href="#">numChannels</a>	<a href="#">pmcp:numChannelsType</a>	optional	2/0		documentation Number of audio channels in the elementary stream (A/65)
	<a href="#">bitRateKbps</a>	<a href="#">pmcp:bitRateKbpsType</a>	optional			documentation Bit rate of the elementary stream in kbps (A/65)
	<a href="#">exactBitRate</a>	<b>xs:boolean</b>	optional			documentation Indicates if bitRateKbps is an exact value or an upper bound (A/65)
	<a href="#">surround</a>	<b>xs:boolean</b>	optional			documentation Indicates if the audio service is surround (A/65)
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<xs:element name="MPEGAACAudio" type="DigitalAudioAttribute"/>					

# element **DigitalAudio/MPEGLayerIIAudio**

diagram

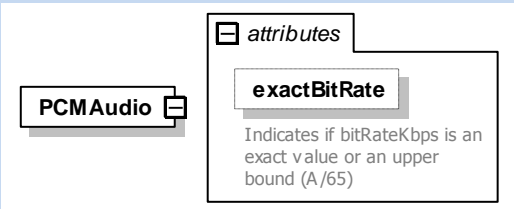


namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [DigitalAudioAttribute](#)

properties	isRef content	0 complex				
attributes	Name <a href="#">audiold</a>	Type <a href="#">pmcp:audioldType</a>	Use required	Default	Fixed	annotation documentation ID of the audio service in the virtual channel. Links to an elementary stream.
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>	optional			documentation Language of the audio stream carried in the ISO_639_language_descriptor
	<a href="#">numChannels</a>	<a href="#">pmcp:numChannelsType</a>	optional	2/0		documentation Number of audio channels in the elementary stream (A/65)
	<a href="#">bitRateKbps</a>	<a href="#">pmcp:bitRateKbpsType</a>	optional			documentation Bit rate of the elementary stream in kbps (A/65)
	<a href="#">exactBitRate</a>	<b>xs:boolean</b>	optional			documentation Indicates if bitRateKbps is an exact value or an upper bound (A/65)
	<a href="#">surround</a>	<b>xs:boolean</b>	optional			documentation Indicates if the audio service is surround (A/65)
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<xs:element name="MPEGLayerIIAudio" type="DigitalAudioAttribute"/>					

#### element DigitalAudio/PCMAudio

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
properties	isRef content	0 complex				
attributes	Name <a href="#">exactBitRate</a>	Type <b>xs:boolean</b>	Use optional	Default	Fixed	annotation documentation Indicates if bitRateKbps is an exact value or an upper bound (A/65)
source	<pre>&lt;xs:element name="PCMAudio"&gt;   &lt;xs:complexType&gt;     &lt;xs:attribute name="exactBitRate" type="xs:boolean" use="optional"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Indicates if bitRateKbps is an exact value or an upper bound (A/65)&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:attribute&gt;</pre>					

	<div>&lt;/xs:complexType&gt; &lt;/xs:element&gt;</div>
--	--

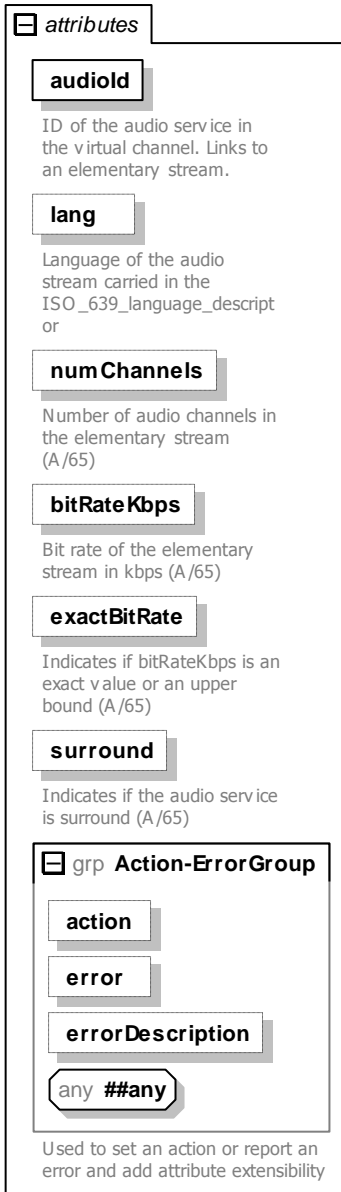
attribute **DigitalAudio/PCMAudio/@exactBitRate**

type	<div>xs:boolean</div>
properties	<div>isRef0 useoptional</div>
annotation	<div>documentation Indicates if bitRateKbps is an exact value or an upper bound (A/65)</div>
source	<div>&lt;xs:attribute name="exactBitRate" type="xs:boolean" use="optional"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Indicates if bitRateKbps is an exact value or an upper bound (A/65)&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</div>

# complexType DigitalAudioAttribute

diagram

**DigitalAudioAttribute**  
Enumerates the parameters of a digital audio stream



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

used by elements [DigitalAudio/DEAudio](#) [DigitalAudio/MPEGAACAudio](#) [DigitalAudio/MPEGLayerIIAudio](#)

attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>annotation</th></tr></thead><tbody><tr><td><a href="#">audiold</a></td><td><a href="#">pmcp:audioldType</a></td><td>required</td><td></td><td></td><td>documentation ID of the audio service in the virtual channel. Links to an elementary stream.</td></tr><tr><td><a href="#">lang</a></td><td><a href="#">pmcp:languageType</a></td><td>optional</td><td></td><td></td><td>documentation Language of the audio stream carried in the ISO_639_language_descriptor</td></tr><tr><td><a href="#">numChannels</a></td><td><a href="#">pmcp:numChannelsType</a></td><td>optional</td><td>2/0</td><td></td><td>documentation Number of audio channels in the elementary stream (A/65)</td></tr><tr><td><a href="#">bitRateKbps</a></td><td><a href="#">pmcp:bitRateKbpsType</a></td><td>optional</td><td></td><td></td><td>documentation Bit rate of the elementary stream in kbps (A/65)</td></tr><tr><td><a href="#">exactBitRate</a></td><td>xs:boolean</td><td>optional</td><td></td><td></td><td>documentation Indicates if bitRateKbps is an exact value or an upper bound (A/65)</td></tr><tr><td><a href="#">surround</a></td><td>xs:boolean</td><td>optional</td><td></td><td></td><td>documentation Indicates if the audio service is surround (A/65)</td></tr><tr><td><a href="#">action</a></td><td><a href="#">pmcp:actionType</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">error</a></td><td><a href="#">BxfError</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">errorDescription</a></td><td>xs:string</td><td>optional</td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">audiold</a>	<a href="#">pmcp:audioldType</a>	required			documentation ID of the audio service in the virtual channel. Links to an elementary stream.	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>	optional			documentation Language of the audio stream carried in the ISO_639_language_descriptor	<a href="#">numChannels</a>	<a href="#">pmcp:numChannelsType</a>	optional	2/0		documentation Number of audio channels in the elementary stream (A/65)	<a href="#">bitRateKbps</a>	<a href="#">pmcp:bitRateKbpsType</a>	optional			documentation Bit rate of the elementary stream in kbps (A/65)	<a href="#">exactBitRate</a>	xs:boolean	optional			documentation Indicates if bitRateKbps is an exact value or an upper bound (A/65)	<a href="#">surround</a>	xs:boolean	optional			documentation Indicates if the audio service is surround (A/65)	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional				<a href="#">error</a>	<a href="#">BxfError</a>	optional				<a href="#">errorDescription</a>	xs:string	optional			
Name	Type	Use	Default	Fixed	annotation																																																								
<a href="#">audiold</a>	<a href="#">pmcp:audioldType</a>	required			documentation ID of the audio service in the virtual channel. Links to an elementary stream.																																																								
<a href="#">lang</a>	<a href="#">pmcp:languageType</a>	optional			documentation Language of the audio stream carried in the ISO_639_language_descriptor																																																								
<a href="#">numChannels</a>	<a href="#">pmcp:numChannelsType</a>	optional	2/0		documentation Number of audio channels in the elementary stream (A/65)																																																								
<a href="#">bitRateKbps</a>	<a href="#">pmcp:bitRateKbpsType</a>	optional			documentation Bit rate of the elementary stream in kbps (A/65)																																																								
<a href="#">exactBitRate</a>	xs:boolean	optional			documentation Indicates if bitRateKbps is an exact value or an upper bound (A/65)																																																								
<a href="#">surround</a>	xs:boolean	optional			documentation Indicates if the audio service is surround (A/65)																																																								
<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional																																																											
<a href="#">error</a>	<a href="#">BxfError</a>	optional																																																											
<a href="#">errorDescription</a>	xs:string	optional																																																											
annotation	documentation Enumerates the parameters of a digital audio stream																																																												
source	<pre>&lt;xs:complexType name="DigitalAudioAttribute"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumerates the parameters of a digital audio stream&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:attribute name="audiold" type="pmcp:audioldType" use="required"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;ID of the audio service in the virtual channel. Links to an elementary stream.&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt;   &lt;xs:attribute name="lang" type="pmcp:languageType" use="optional"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Language of the audio stream carried in the ISO_639_language_descriptor&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt;   &lt;xs:attribute name="numChannels" type="pmcp:numChannelsType" use="optional" default="2/0"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Number of audio channels in the elementary stream (A/65)&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt;   &lt;xs:attribute name="bitRateKbps" type="pmcp:bitRateKbpsType" use="optional"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Bit rate of the elementary stream in kbps (A/65)&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt;   &lt;xs:attribute name="exactBitRate" type="xs:boolean" use="optional"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Indicates if bitRateKbps is an exact value or an upper bound (A/65)&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt;   &lt;xs:attribute name="surround" type="xs:boolean" use="optional"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Indicates if the audio service is surround (A/65)&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:attribute&gt; &lt;/xs:complexType&gt;</pre>																																																												

	<pre> &lt;/xs:attribute&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	---

#### attribute **DigitalAudioAttribute/@audiold**

type	<a href="#">pmcp:audioldType</a>
properties	isRef 0 use required
facets	minInclusive 1
annotation	documentation ID of the audio service in the virtual channel. Links to an elementary stream.
source	<pre> &lt;xs:attribute name="audiold" type="pmcp:audioldType" use="required"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;ID of the audio service in the virtual channel. Links to an elementary stream.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **DigitalAudioAttribute/@lang**

type	<a href="#">pmcp:languageType</a>
properties	isRef 0 use optional
facets	pattern [a-z]{3}
annotation	documentation Language of the audio stream carried in the ISO_639_language_descriptor
source	<pre> &lt;xs:attribute name="lang" type="pmcp:languageType" use="optional"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Language of the audio stream carried in the ISO_639_language_descriptor&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **DigitalAudioAttribute/@numChannels**

type	<a href="#">pmcp:numChannelsType</a>
properties	isRef 0 default 2/0 use optional
facets	enumeration 1/0 enumeration 2/0 enumeration 3/0 enumeration 2/1 enumeration 3/1 enumeration 2/2 enumeration 3/2 enumeration 1 enumeration 2_or_less enumeration 3_or_less

	enumeration 4_or_less enumeration 5_or_less enumeration 6_or_less
annotation	documentation Number of audio channels in the elementary stream (A/65)
source	<xs:attribute name="numChannels" type="pmcp:numChannelsType" use="optional" default="2/0"> <xs:annotation> <xs:documentation>Number of audio channels in the elementary stream (A/65)</xs:documentation> </xs:annotation> </xs:attribute>

#### attribute **DigitalAudioAttribute/@bitRateKbps**

type	<a href="#">pmcp:bitRateKbpsType</a>
properties	isRef 0 use optional
facets	maxInclusive 448
annotation	documentation Bit rate of the elementary stream in kbps (A/65)
source	<xs:attribute name="bitRateKbps" type="pmcp:bitRateKbpsType" use="optional"> <xs:annotation> <xs:documentation>Bit rate of the elementary stream in kbps (A/65)</xs:documentation> </xs:annotation> </xs:attribute>

#### attribute **DigitalAudioAttribute/@exactBitRate**

type	<b>xs:boolean</b>
properties	isRef 0 use optional
annotation	documentation Indicates if bitRateKbps is an exact value or an upper bound (A/65)
source	<xs:attribute name="exactBitRate" type="xs:boolean" use="optional"> <xs:annotation> <xs:documentation>Indicates if bitRateKbps is an exact value or an upper bound (A/65)</xs:documentation> </xs:annotation> </xs:attribute>

#### attribute **DigitalAudioAttribute/@surround**

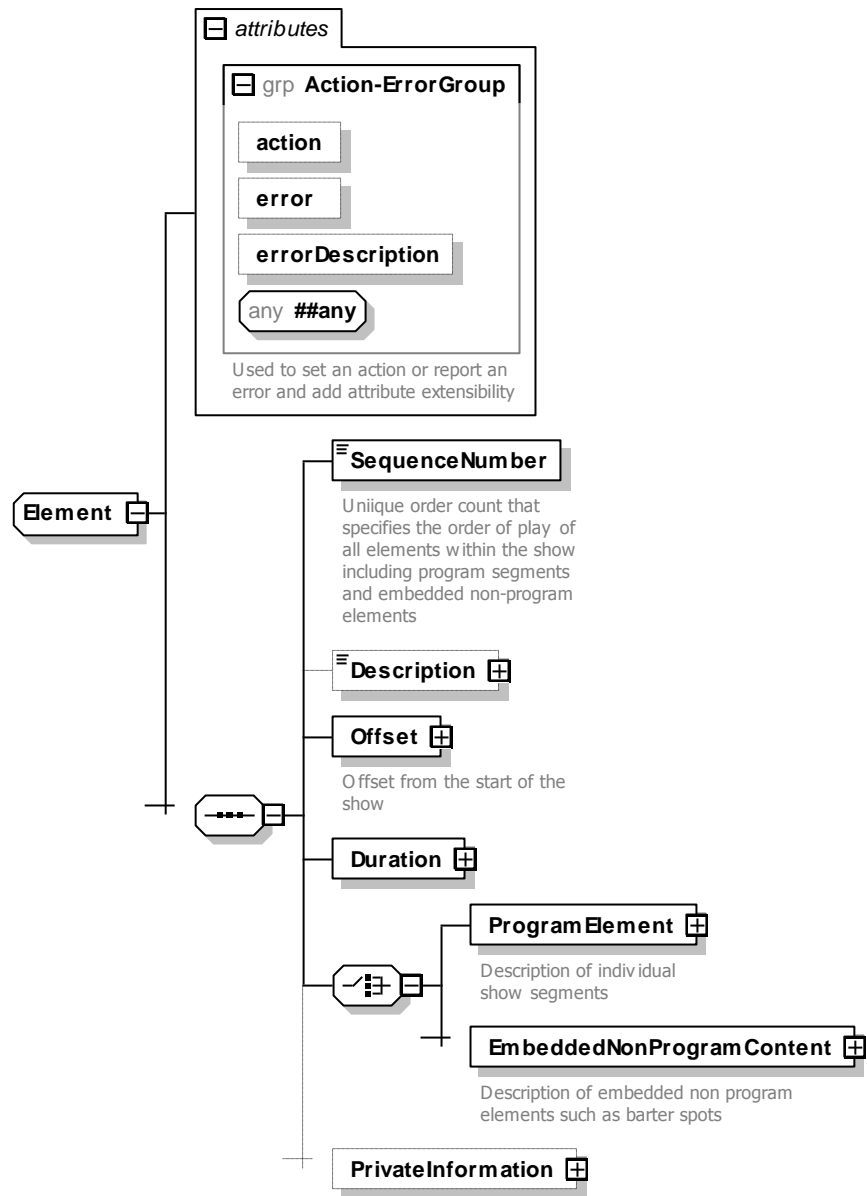
type	<b>xs:boolean</b>
properties	isRef 0 use optional
annotation	documentation Indicates if the audio service is surround (A/65)
source	<xs:attribute name="surround" type="xs:boolean" use="optional"> <xs:annotation>



	<code>&lt;xs:documentation&gt;</code> Indicates if the audio service is surround (A/65) <code>&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:attribute&gt;</code>
--	---

# complexType Element

diagram

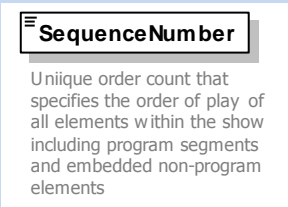


namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [SequenceNumber](#) [Description](#) [Offset](#) [Duration](#) [ProgramElement](#) [EmbeddedNonProgramContent](#) [PrivateInformation](#)

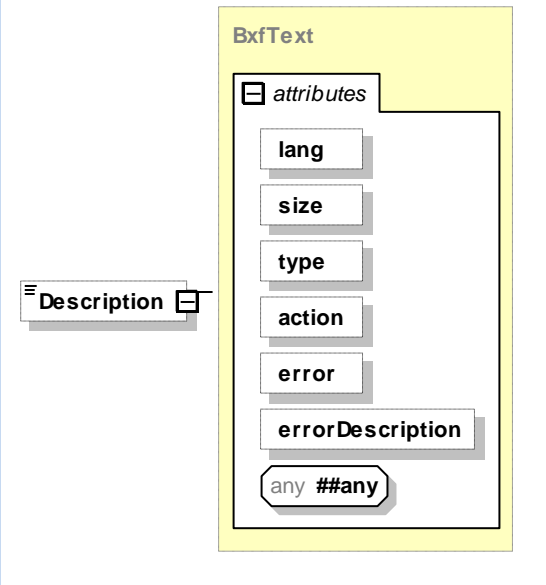
used by	element <a href="#">ProgramContent/Elements/Element</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<pre> &lt;xs:complexType name="Element"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="SequenceNumber" type="xs:positiveInteger"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Unique order count that specifies the order of play of all elements within the show including program segments and embedded non-program elements&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Description" type="BxfText" minOccurs="0"/&gt;     &lt;xs:element name="Offset" type="BxfSmpTime"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Offset from the start of the show&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Duration" type="BxfDuration"/&gt;     &lt;xs:choice&gt;       &lt;xs:element name="ProgramElement" type="ProgramElement"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Description of individual show segments&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="EmbeddedNonProgramContent" type="NonProgramContent"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Description of embedded non program elements such as barter spots&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:choice&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>					

#### element **Element/SequenceNumber**

diagram	
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>
type	<b>xs:positiveInteger</b>

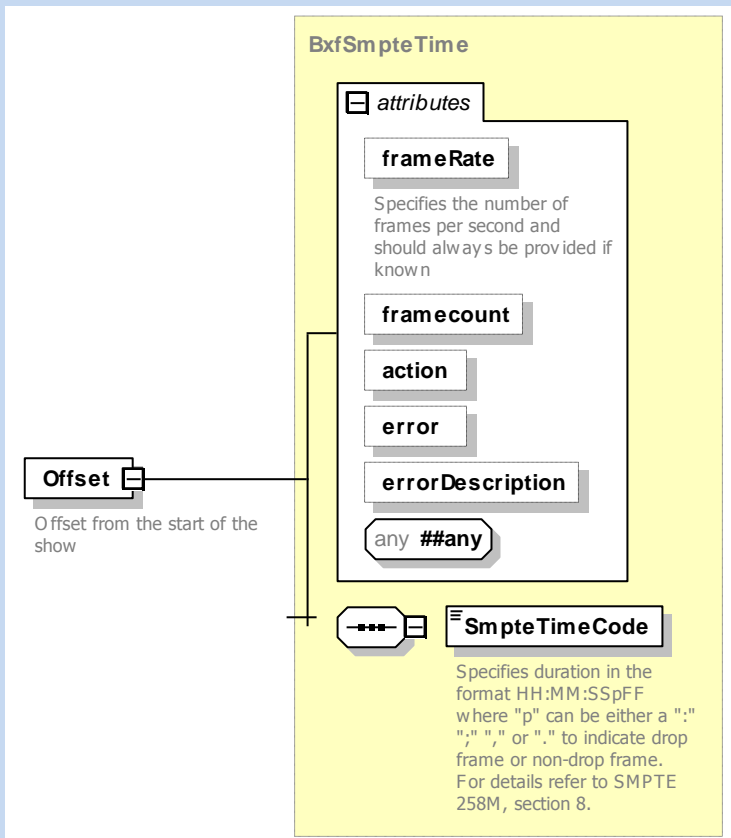
properties	isRef 0 content simple
annotation	documentation Unique order count that specifies the order of play of all elements within the show including program segments and embedded non-program elements
source	<xs:element name="SequenceNumber" type="xs:positiveInteger"> <xs:annotation> <xs:documentation>Unique order count that specifies the order of play of all elements within the show including program segments and embedded non-program elements</xs:documentation> </xs:annotation> </xs:element>

element **Element/Description**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef 0 minOcc 0 maxOcc 1 content complex					
attributes	Name <a href="#">lang</a> <a href="#">size</a> <a href="#">type</a> <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:languageType</a> <a href="#">xs:positiveInteger</a> <a href="#">xs:string</a> <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use   optional optional optional	Default	Fixed	annotation
source	<xs:element name="Description" type="BxfText" minOccurs="0"/>					

# element **Element/Offset**

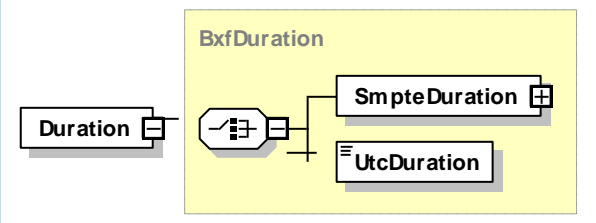
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfSmpteTime</a>					
properties	isRef	0				
	content	complex				
children	<a href="#">SmpteTimeCode</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">frameRate</a>	xs:decimal				documentation
						Specifies the number of frames per second and should always be provided if known
	<a href="#">framecount</a>	xs:integer				
	<a href="#">action</a>	pmcp:actionType	optional			
	<a href="#">error</a>	BxfError	optional			
	<a href="#">errorDescription</a>	xs:string	optional			

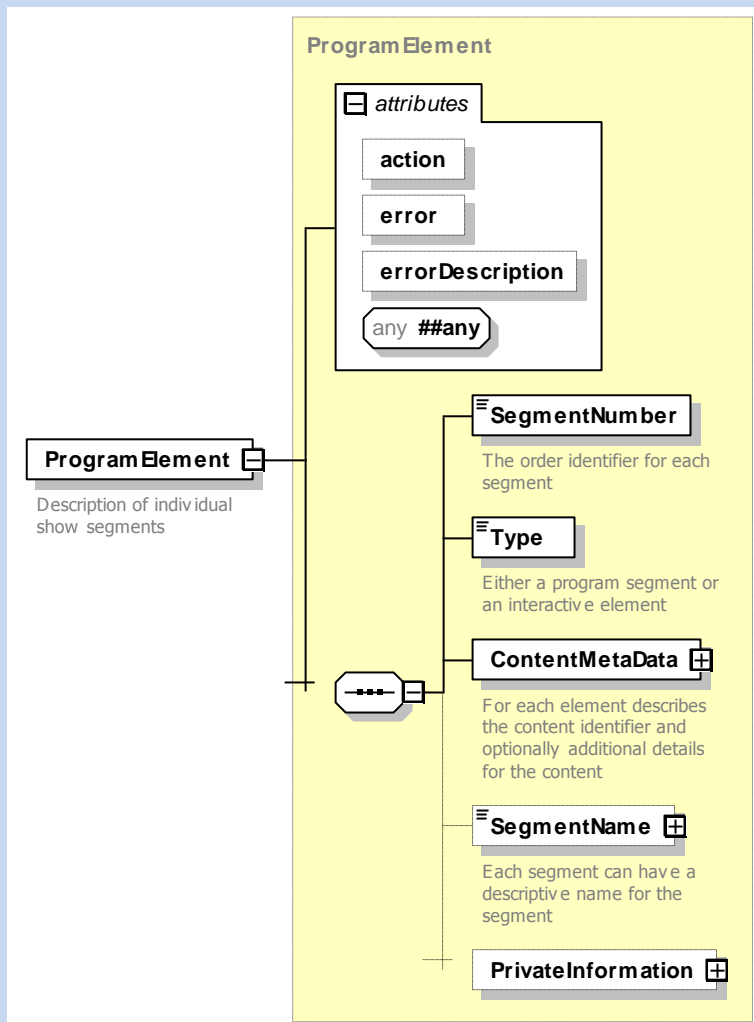
annotation	documentation Offset from the start of the show
source	<xs:element name="Offset" type="BxfSmpteTime"> <xs:annotation> <xs:documentation>Offset from the start of the show</xs:documentation> </xs:annotation> </xs:element>

element **Element/Duration**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfDuration</a>
properties	isRef 0 content complex
children	<a href="#">SmpteDuration</a> <a href="#">UtcDuration</a>
source	<xs:element name="Duration" type="BxfDuration"/>

# element **Element/ProgramElement**

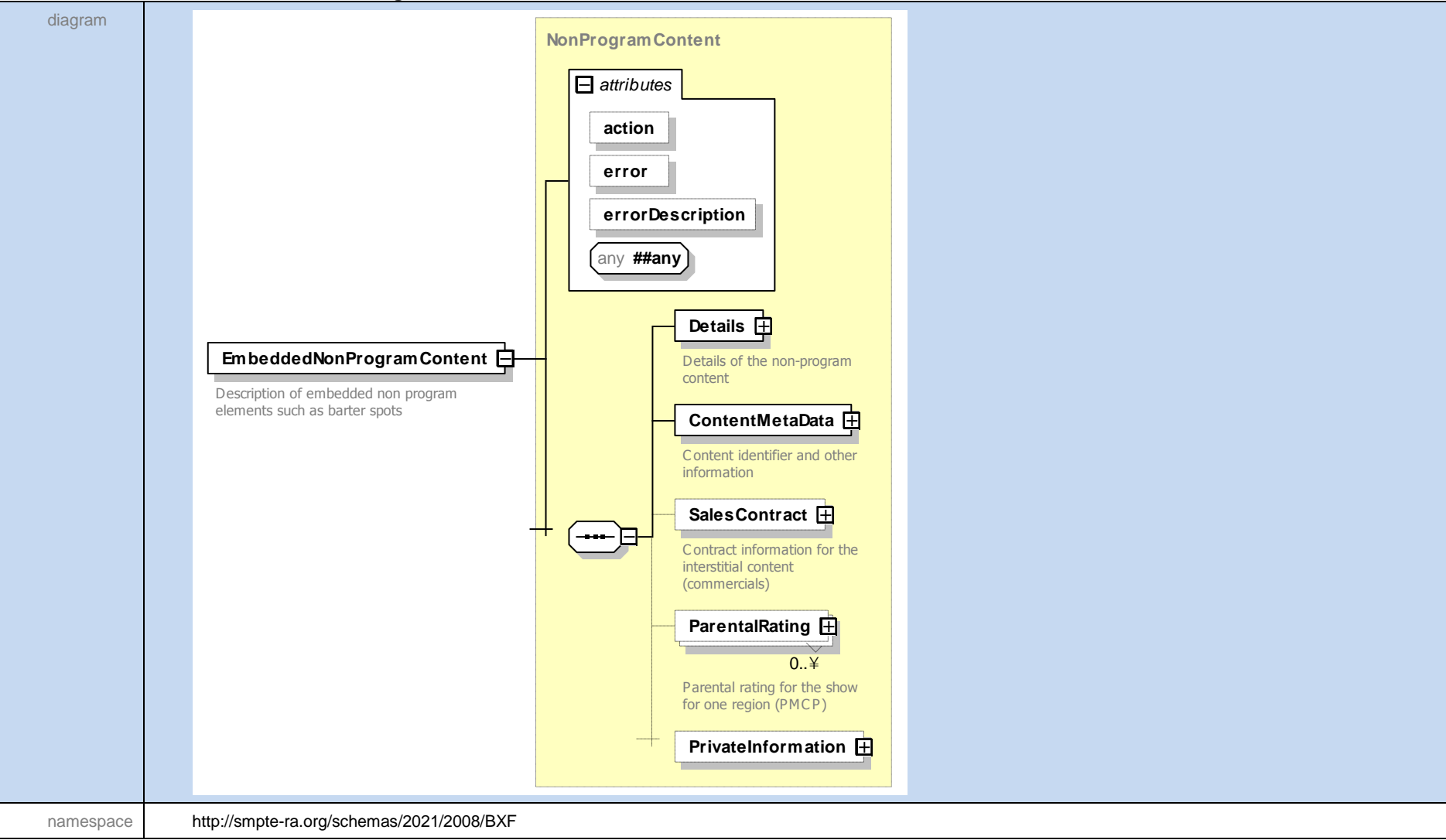
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">ProgramElement</a>					
properties	isRef	0				
	content	complex				
children	<a href="#">SegmentNumber</a> <a href="#">Type</a> <a href="#">ContentMetaData</a> <a href="#">SegmentName</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			

annotation	documentation Description of individual show segments
source	<xs:element name="ProgramElement" type="ProgramElement"> <xs:annotation> <xs:documentation>Description of individual show segments</xs:documentation> </xs:annotation> </xs:element>

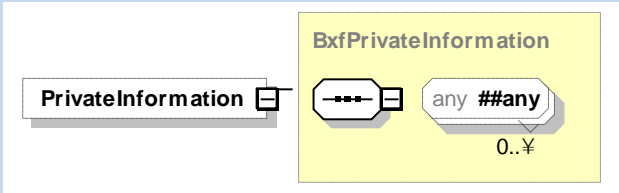
element **Element/EmbeddedNonProgramContent**





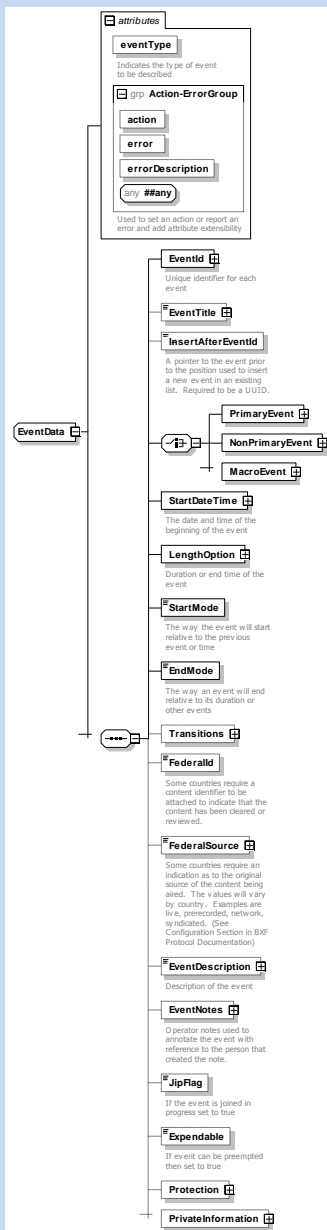
type	<a href="#">NonProgramContent</a>					
properties	isRef	0				
	content	complex				
children	<a href="#">Details</a> <a href="#">ContentMetaData</a> <a href="#">SalesContract</a> <a href="#">ParentalRating</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation Description of embedded non program elements such as barter spots					
source	<pre>&lt;xs:element name="EmbeddedNonProgramContent" type="NonProgramContent"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Description of embedded non program elements such as barter spots&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

#### element **Element/PrivateInformation**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	<div><div>isRef</div><div>0</div></div> <div><div>minOcc</div><div>0</div></div> <div><div>maxOcc</div><div>1</div></div> <div><div>content</div><div>complex</div></div>
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

# complexType EventData

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

children	<a href="#">EventId</a> <a href="#">EventTitle</a> <a href="#">InsertAfterEventId</a> <a href="#">PrimaryEvent</a> <a href="#">NonPrimaryEvent</a> <a href="#">MacroEvent</a> <a href="#">StartDateTime</a> <a href="#">LengthOption</a> <a href="#">StartMode</a> <a href="#">EndMode</a> <a href="#">Transitions</a> <a href="#">FederalId</a> <a href="#">FederalSource</a> <a href="#">EventDescription</a> <a href="#">EventNotes</a> <a href="#">JipFlag</a> <a href="#">Expendable</a> <a href="#">Protection</a> <a href="#">PrivateInformation</a>					
used by	elements <a href="#">ScheduledEvent/EventData</a> <a href="#">ScheduledEvent/ScheduleElements/EventData</a>					
attributes	Name <a href="#">eventType</a>  <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <b>derived by:</b> <b>xs:string</b> <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use  optional optional optional	Default   Fixed	Fixed	annotation documentation Indicates the type of event to be described
source	<pre>&lt;xs:complexType name="EventData"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="EventId" type="EventExtId"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Unique identifier for each event&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="EventTitle" type="BxfText" minOccurs="0"/&gt;     &lt;xs:element name="InsertAfterEventId" type="Uuid" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A pointer to the event prior to the position used to insert a new event in an existing list. Required to be a UUID.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:choice&gt;       &lt;xs:element name="PrimaryEvent" type="PrimaryEvent"/&gt;       &lt;xs:element name="NonPrimaryEvent" type="NonPrimaryEvent"/&gt;       &lt;xs:element name="MacroEvent" type="Macro"/&gt;     &lt;/xs:choice&gt;     &lt;xs:element name="StartDateTime"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The date and time of the beginning of the event&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:complexContent&gt;           &lt;xs:extension base="BxfDateTime"&gt;             &lt;xs:attribute name="nominalFlag"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;Used to indicate that the start time is not an exact value and may be variable.&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:attribute&gt;           &lt;/xs:extension&gt;         &lt;/xs:complexContent&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="LengthOption"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Duration or end time of the event&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:choice&gt;           &lt;xs:element name="Duration"&gt;             &lt;xs:complexType&gt;               &lt;xs:complexContent&gt;                 &lt;xs:extension base="BxfDuration"&gt;</pre>					

```

<xs:sequence>
  <xs:element name="EstimatedDurationOffset" type="xs:unsignedInt" minOccurs="0" maxOccurs="2">
    <xs:annotation>
      <xs:documentation>Used to indicate the amount of time in plus or minus total minutes that the duration may be adjusted</xs:documentation>
    </xs:annotation>
  </xs:element>
</xs:sequence>
<xs:attribute name="nominalFlag" type="xs:boolean">
  <xs:annotation>
    <xs:documentation>Used to indicate that the duration is not an exact value and may be variable.</xs:documentation>
  </xs:annotation>
</xs:attribute>
</xs:extension>
</xs:complexContent>
</xs:complexType>
</xs:element>
<xs:element name="EndTime">
  <xs:complexType>
    <xs:complexContent>
      <xs:extension base="BxfDateTime">
        <xs:sequence>
          <xs:element name="EstimatedDurationOffset" type="xs:unsignedInt" minOccurs="0" maxOccurs="2">
            <xs:annotation>
              <xs:documentation>Used to indicate the amount of time in plus or minus total minutes that the end time may be adjusted</xs:documentation>
            </xs:annotation>
          </xs:element>
        </xs:sequence>
        <xs:attribute name="nominalFlag" type="xs:boolean">
          <xs:annotation>
            <xs:documentation>Used to indicate that the end time is not an exact value and may be variable.</xs:documentation>
          </xs:annotation>
        </xs:attribute>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
</xs:element>
</xs:choice>
</xs:complexType>
</xs:element>
<xs:element name="StartMode" type="StartModeType" default="Follow">
  <xs:annotation>
    <xs:documentation>The way the event will start relative to the previous event or time</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="EndMode" type="EndModeType" default="Duration">
  <xs:annotation>
    <xs:documentation>The way an event will end relative to its duration or other events</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Transitions" minOccurs="0">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="AudioTransitions" type="AudioTransition" minOccurs="0" maxOccurs="unbounded"/>
      <xs:element name="VideoTransitions" type="VideoTransition" minOccurs="0"/>
    </xs:sequence>
  </xs:complexType>

```

```

</xs:complexType>
</xs:element>
<xs:element name="FederalId" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Some countries require a content identifier to be attached to indicate that the content has been cleared or reviewed.</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
      <xs:maxLength value="255"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="FederalSource" type="BxfText" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Some countries require an indication as to the original source of the content being aired. The values will vary by country. Examples are live, prerecorded, network, syndicated. (See Configuration Section in BXF Protocol Documentation)</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="EventDescription" type="BxfText" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Description of the event</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="EventNotes" type="EventNotes" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Operator notes used to annotate the event with reference to the person that created the note.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="JipFlag" type="xs:boolean" minOccurs="0">
  <xs:annotation>
    <xs:documentation>If the event is joined in progress set to true</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Expendable" type="xs:boolean" minOccurs="0">
  <xs:annotation>
    <xs:documentation>If event can be preempted then set to true </xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Protection" minOccurs="0">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="ProtectionSourceRequested" type="xs:boolean" default="0">
        <xs:annotation>
          <xs:documentation>If set to true then type is required. Default is false. Indicates that the event should have a protected source (ie backup) that can be used if the primary source is unavailable or fails.</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="ProtectionSourceName" minOccurs="0">
        <xs:annotation>
          <xs:documentation>Name of the type of protection source to be used. This must be configured within the system. (See Configuration Section in BXF Protocol Documentation)</xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:sequence>
  </xs:complexType>

```

	<pre> &lt;xs:minLength value="1"/&gt; &lt;xs:maxLength value="255"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="eventType"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Indicates the type of event to be described&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt; &lt;xs:restriction base="xs:string"&gt; &lt;xs:enumeration value="Primary"/&gt; &lt;xs:enumeration value="Primary-ProgramHeader"/&gt; &lt;xs:enumeration value="Primary-BreakHeader"/&gt; &lt;xs:enumeration value="NonPrimary"/&gt; &lt;xs:enumeration value="Comment"/&gt; &lt;xs:enumeration value="Macro"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	---

#### attribute **EventData/@eventType**

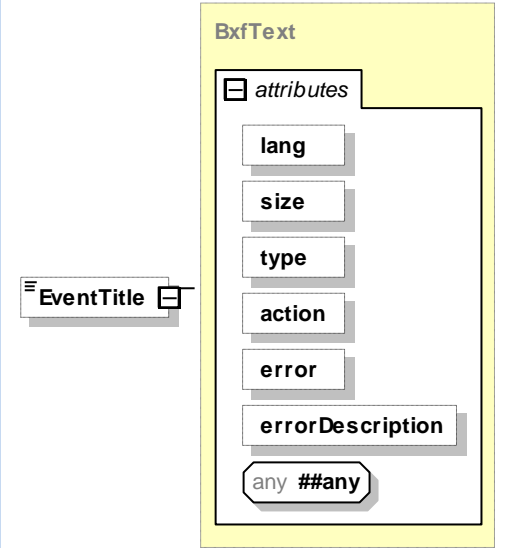
type	restriction of <b>xs:string</b>	
properties	isRef	0
facets	enumeration Primary enumeration Primary-ProgramHeader enumeration Primary-BreakHeader enumeration NonPrimary enumeration Comment enumeration Macro	
annotation	documentation Indicates the type of event to be described	
source	<pre> &lt;xs:attribute name="eventType"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Indicates the type of event to be described&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt; &lt;xs:restriction base="xs:string"&gt; &lt;xs:enumeration value="Primary"/&gt; &lt;xs:enumeration value="Primary-ProgramHeader"/&gt; &lt;xs:enumeration value="Primary-BreakHeader"/&gt; &lt;xs:enumeration value="NonPrimary"/&gt; &lt;xs:enumeration value="Comment"/&gt; &lt;xs:enumeration value="Macro"/&gt; </pre>	

	<pre> &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>
--	---

element **EventData/EventId**

<div> <div>diagram</div> <div> <p>The diagram shows the structure of the <b>EventId</b> and <b>EventExtId</b> elements. <b>EventId</b> is a simple type with a unique identifier for each event. <b>EventExtId</b> is a complex type that contains <b>EventId</b>, <b>BillingReferenceCode</b>, and <b>Null</b>. The <b>EventId</b> element is shown as a box with a unique identifier icon. The <b>EventExtId</b> element is shown as a box with a complex type icon. The <b>EventId</b> element is connected to the <b>EventExtId</b> element. The <b>EventExtId</b> element contains the <b>EventId</b>, <b>BillingReferenceCode</b>, and <b>Null</b> elements. The <b>EventId</b> element is described as 'Unique identifier for each event'. The <b>EventExtId</b> element is described as 'Unique within a schedule reference for each event required to be a UUID'. The <b>BillingReferenceCode</b> element is described as 'Used to link an event back to its billing record'.</p> </div> </div>	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">EventExtId</a>
properties	<div>isRef</div> <div>0</div> <div>content</div> <div>complex</div>
children	<a href="#">Null</a> <a href="#">EventId</a> <a href="#">BillingReferenceCode</a>
annotation	<div>documentation</div> <div>Unique identifier for each event</div>
source	<pre> &lt;xs:element name="EventId" type="EventExtId"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Unique identifier for each event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## element EventData/EventTitle

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
source	<xs:element name="EventTitle" type="BxfText" minOccurs="0"/>					

## element EventData/InsertAfterEventId

diagram	 <p>A pointer to the event prior to the position used to insert a new event in an existing list. Required to be a UUID.</p>					
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					



type	<a href="#">Uuid</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	simple	
facets	length	45	
	pattern	urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}	
annotation	documentation	A pointer to the event prior to the position used to insert a new event in an existing list. Required to be a UUID.	
source	<div>&lt;xs:element name="InsertAfterEventId" type="Uuid" minOccurs="0"&gt; &lt;xs:annotation&gt;   &lt;xs:documentation&gt;A pointer to the event prior to the position used to insert a new event in an existing list. Required to be a UUID.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt;</div>		

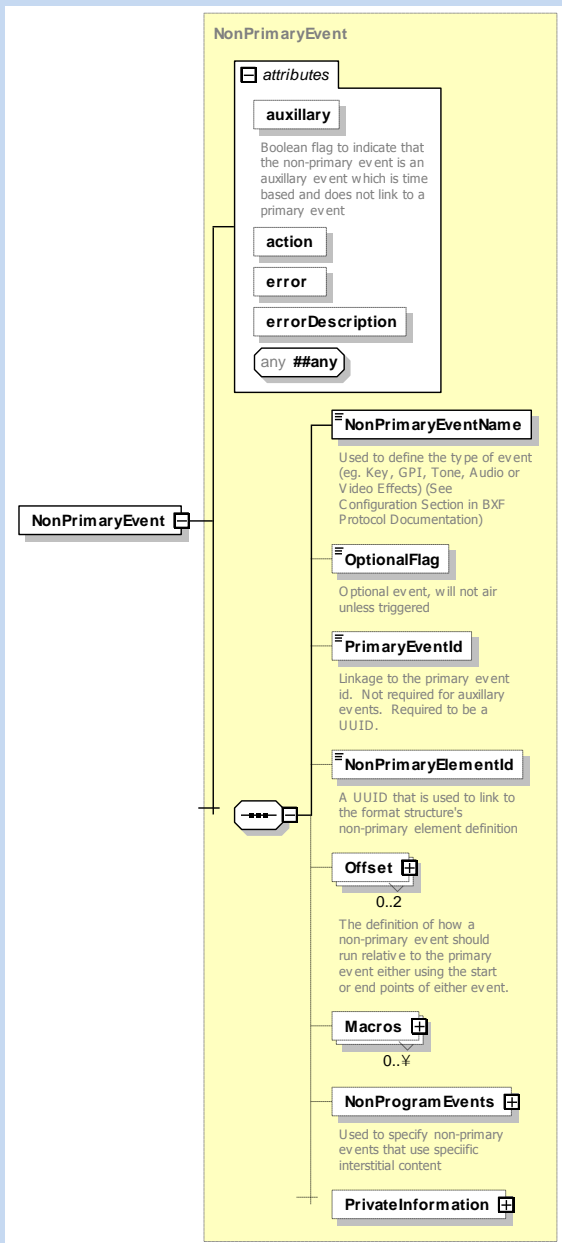
### element **EventData/PrimaryEvent**

diagram	<pre> graph TD     PE[PrimaryEvent] --- A[attributes]     A --- action     A --- error     A --- errorDescription     A --- any[any ##any]     PE --- C1[Choice]     C1 --- PE1[ProgramEvent]     C1 --- NPE1[NonProgramEvent]     PE --- C2[Choice]     C2 --- PEID[PrimaryElementId]     PEID --- PEID_DOC[Uses a UUID to link to the format structure element]     C2 --- PI[PrivateInformation]   </pre>		
namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">PrimaryEvent</a>		
properties	isRef	0	
	content	complex	

children	<a href="#">ProgramEvent</a> <a href="#">NonProgramEvent</a> <a href="#">PrimaryElementId</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="PrimaryEvent" type="PrimaryEvent"/>					

# element EventData/NonPrimaryEvent

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

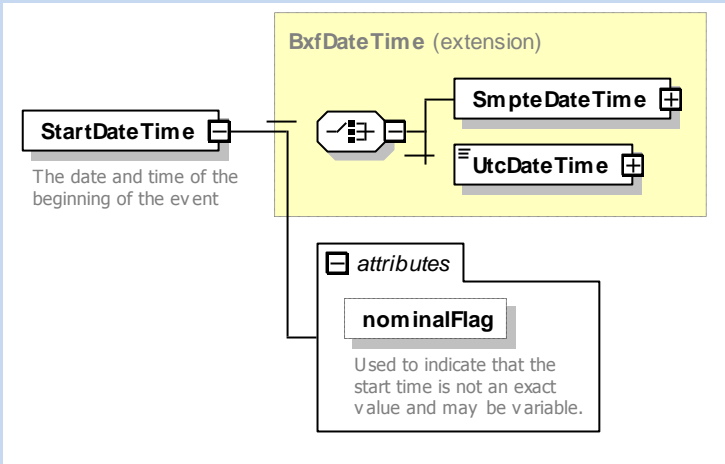
type	<a href="#">NonPrimaryEvent</a>					
properties	isRef	0				
	content	complex				
children	<a href="#">NonPrimaryEventName</a> <a href="#">OptionalFlag</a> <a href="#">PrimaryEventId</a> <a href="#">NonPrimaryElementId</a> <a href="#">Offset</a> <a href="#">Macros</a> <a href="#">NonProgramEvents</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">auxillary</a>	<b>xs:boolean</b>		false		documentation Boolean flag to indicate that the non-primary event is an auxillary event which is time based and does not link to a primary event
	<a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	<a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	optional optional optional			
source	<xs:element name="NonPrimaryEvent" type="NonPrimaryEvent"/>					

element **EventData/MacroEvent**

diagram						
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>					
type	<a href="#">Macro</a>					
properties	isRef	0				
	content	complex				

children	<a href="#">MacroName</a> <a href="#">MacroParameterString</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="MacroEvent" type="Macro"/>					

element **EventData/StartDateTime**

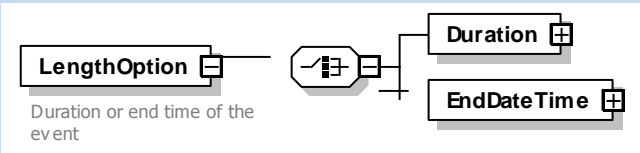
diagram													
namespace	http://smpte-ra.org/schemas/2021/2008/BXF												
type	extension of <a href="#">BxfDateTime</a>												
properties	isRef 0 content complex												
children	<a href="#">SmpteDateTime</a> <a href="#">UtcDateTime</a>												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>annotation</th></tr></thead><tbody><tr><td><a href="#">nominalFlag</a></td><td></td><td></td><td></td><td></td><td>documentation Used to indicate that the start time is not an exact value and may be variable.</td></tr></tbody></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">nominalFlag</a>					documentation Used to indicate that the start time is not an exact value and may be variable.
Name	Type	Use	Default	Fixed	annotation								
<a href="#">nominalFlag</a>					documentation Used to indicate that the start time is not an exact value and may be variable.								
annotation	documentation The date and time of the beginning of the event												
source	<pre>&lt;xs:element name="StartDateTime"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The date and time of the beginning of the event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:complexContent&gt;       &lt;xs:extension base="BxfDateTime"&gt;</pre>												

	<pre> &lt;xs:attribute name="nominalFlag"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to indicate that the start time is not an exact value and may be variable.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	---

#### attribute **EventData/StartDateTime/@nominalFlag**

properties	isRef 0
annotation	documentation Used to indicate that the start time is not an exact value and may be variable.
source	<pre> &lt;xs:attribute name="nominalFlag"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to indicate that the start time is not an exact value and may be variable.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### element **EventData/LengthOption**

diagram	 <p>Duration or end time of the event</p>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 content complex
children	<a href="#">Duration</a> <a href="#">EndDateTime</a>
annotation	documentation Duration or end time of the event
source	<pre> &lt;xs:element name="LengthOption"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Duration or end time of the event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:choice&gt;       &lt;xs:element name="Duration"&gt;         &lt;xs:complexType&gt;           &lt;xs:complexContent&gt;             &lt;xs:extension base="BxfDuration"&gt;               &lt;xs:sequence&gt;                 &lt;xs:element name="EstimatedDurationOffset" type="xs:unsignedInt" minOccurs="0" maxOccurs="2"&gt;                   &lt;xs:annotation&gt;                     &lt;xs:documentation&gt;Used to indicate the amount of time in plus or minus total minutes that the duration may be adjusted&lt;/xs:documentation&gt; </pre>

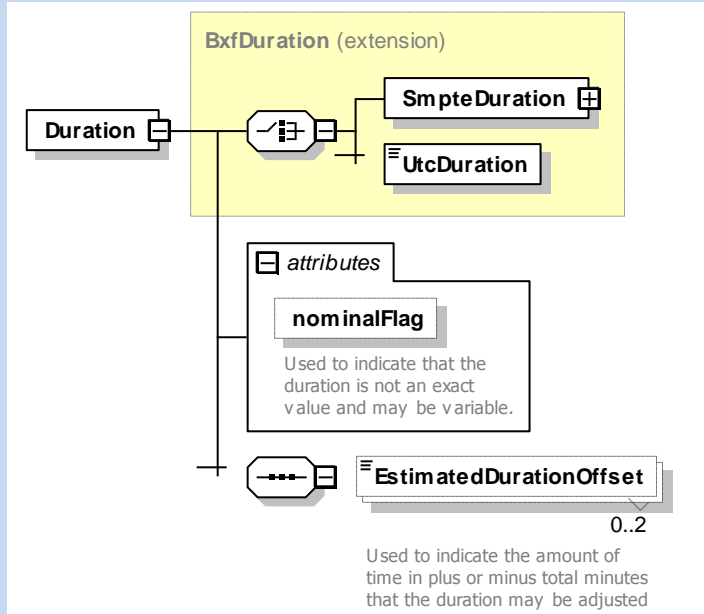
```

</xs:annotation>
</xs:element>
</xs:sequence>
<xs:attribute name="nominalFlag" type="xs:boolean">
  <xs:annotation>
    <xs:documentation>Used to indicate that the duration is not an exact value and may be variable.</xs:documentation>
  </xs:annotation>
</xs:attribute>
</xs:extension>
</xs:complexContent>
</xs:complexType>
</xs:element>
<xs:element name="EndTime">
  <xs:complexType>
    <xs:complexContent>
      <xs:extension base="BxfDateTime">
        <xs:sequence>
          <xs:element name="EstimatedDurationOffset" type="xs:unsignedInt" minOccurs="0" maxOccurs="2">
            <xs:annotation>
              <xs:documentation>Used to indicate the amount of time in plus or minus total minutes that the end time may be adjusted</xs:documentation>
            </xs:annotation>
          </xs:element>
        </xs:sequence>
        <xs:attribute name="nominalFlag" type="xs:boolean">
          <xs:annotation>
            <xs:documentation>Used to indicate that the end time is not an exact value and may be variable.</xs:documentation>
          </xs:annotation>
        </xs:attribute>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
</xs:element>
</xs:choice>
</xs:complexType>
</xs:element>

```

element **EventData/LengthOption/Duration**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type extension of [BxfDuration](#)

properties isRef 0  
content complex

children [SmpteDuration](#) [UtcDuration](#) [EstimatedDurationOffset](#)

Name	Type	Use	Default	Fixed	annotation
<a href="#">nominalFlag</a>	xs:boolean				documentation Used to indicate that the duration is not an exact value and may be variable.

```
<xs:element name="Duration">
  <xs:complexType>
    <xs:complexContent>
      <xs:extension base="BxfDuration">
        <xs:sequence>
          <xs:element name="EstimatedDurationOffset" type="xs:unsignedInt" minOccurs="0" maxOccurs="2">
            <xs:annotation>
              <xs:documentation>Used to indicate the amount of time in plus or minus total minutes that the duration may be adjusted</xs:documentation>
            </xs:annotation>
          </xs:element>
        </xs:sequence>
        <xs:attribute name="nominalFlag" type="xs:boolean">
          <xs:annotation>
            <xs:documentation>Used to indicate that the duration is not an exact value and may be variable.</xs:documentation>
          </xs:annotation>
        </xs:attribute>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
</xs:element>
```

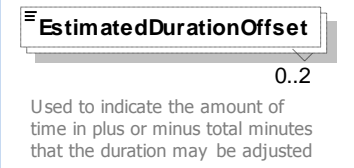


	<pre> &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	---

#### attribute EventData/LengthOption/Duration/@nominalFlag

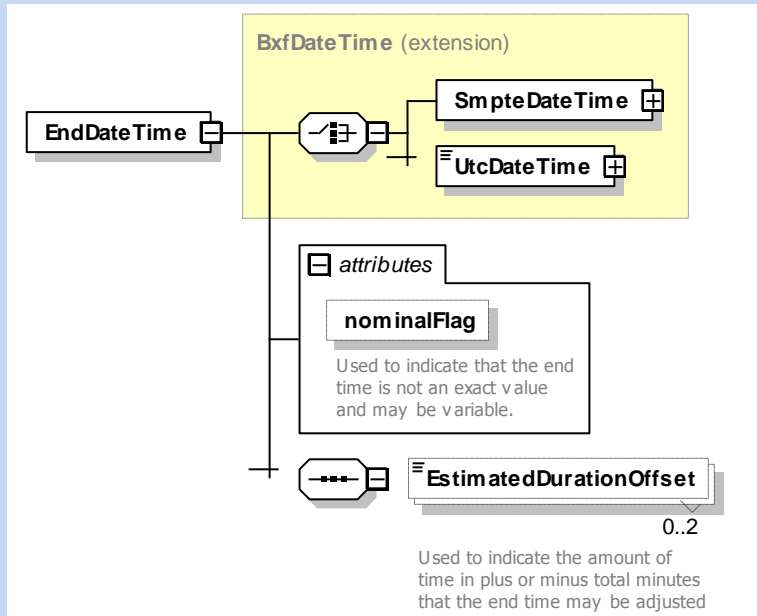
type	<b>xs:boolean</b>
properties	isRef 0
annotation	documentation Used to indicate that the duration is not an exact value and may be variable.
source	<pre> &lt;xs:attribute name="nominalFlag" type="xs:boolean"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Used to indicate that the duration is not an exact value and may be variable.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### element EventData/LengthOption/Duration/EstimatedDurationOffset

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:unsignedInt</b>
properties	isRef 0 minOcc 0 maxOcc 2 content simple
annotation	documentation Used to indicate the amount of time in plus or minus total minutes that the duration may be adjusted
source	<pre> &lt;xs:element name="EstimatedDurationOffset" type="xs:unsignedInt" minOccurs="0" maxOccurs="2"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Used to indicate the amount of time in plus or minus total minutes that the duration may be adjusted&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

element **EventData/LengthOption/EndTime**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type extension of [BxfDateTime](#)

properties isRef 0  
content complex

children [SmpteDateTime](#) [UtcDateTime](#) [EstimatedDurationOffset](#)

Name	Type	Use	Default	Fixed	annotation
<a href="#">nominalFlag</a>	xs:boolean				documentation Used to indicate that the end time is not an exact value and may be variable.

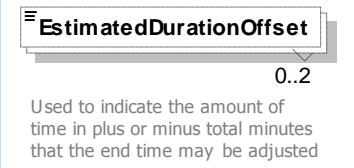
```
<xs:element name="EndTime">
  <xs:complexType>
    <xs:complexContent>
      <xs:extension base="BxfDateTime">
        <xs:sequence>
          <xs:element name="EstimatedDurationOffset" type="xs:unsignedInt" minOccurs="0" maxOccurs="2">
            <xs:annotation>
              <xs:documentation>Used to indicate the amount of time in plus or minus total minutes that the end time may be adjusted</xs:documentation>
            </xs:annotation>
          </xs:element>
        </xs:sequence>
        <xs:attribute name="nominalFlag" type="xs:boolean">
          <xs:annotation>
            <xs:documentation>Used to indicate that the end time is not an exact value and may be variable.</xs:documentation>
          </xs:annotation>
        </xs:attribute>
      </xs:extension>
    </xs:complexContent>
  </xs:complexType>
</xs:element>
```

	<pre> &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	---

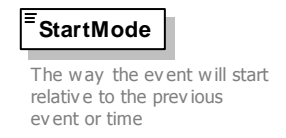
#### attribute **EventData/LengthOption/EndTime/@nominalFlag**

type	<b>xs:boolean</b>
properties	isRef 0
annotation	documentation Used to indicate that the end time is not an exact value and may be variable.
source	<pre> &lt;xs:attribute name="nominalFlag" type="xs:boolean"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Used to indicate that the end time is not an exact value and may be variable.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>


#### element **EventData/LengthOption/EndTime/EstimatedDurationOffset**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:unsignedInt</b>
properties	isRef 0 minOcc 0 maxOcc 2 content simple
annotation	documentation Used to indicate the amount of time in plus or minus total minutes that the end time may be adjusted
source	<pre> &lt;xs:element name="EstimatedDurationOffset" type="xs:unsignedInt" minOccurs="0" maxOccurs="2"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Used to indicate the amount of time in plus or minus total minutes that the end time may be adjusted&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## element EventData/StartMode

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">StartModeType</a>
properties	isRef 0 content simple default Follow
facets	enumeration Follow enumeration Fixed enumeration Manual enumeration External
annotation	documentation The way the event will start relative to the previous event or time
source	<pre>&lt;xs:element name="StartMode" type="StartModeType" default="Follow"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The way the event will start relative to the previous event or time&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element EventData/EndMode

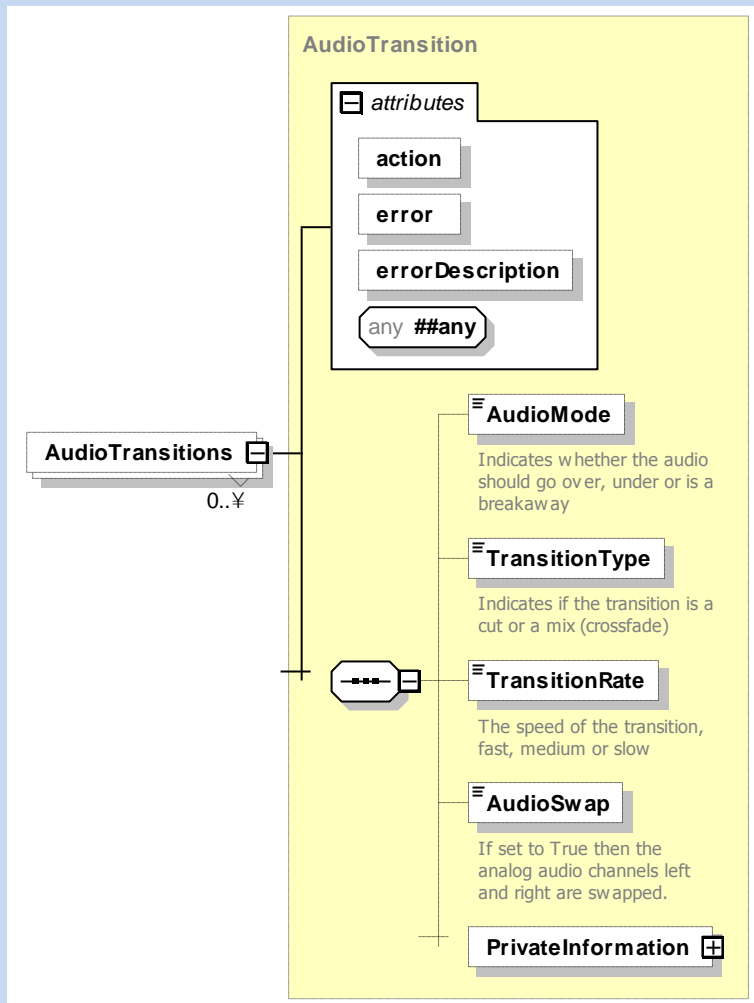
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">EndModeType</a>
properties	isRef 0 content simple default Duration
facets	enumeration Duration enumeration Manual enumeration External
annotation	documentation The way an event will end relative to its duration or other events
source	<pre>&lt;xs:element name="EndMode" type="EndModeType" default="Duration"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The way an event will end relative to its duration or other events&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

element **EventData/Transitions**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">AudioTransitions</a> <a href="#">VideoTransitions</a>
source	<pre> &lt;xs:element name="Transitions" minOccurs="0"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="AudioTransitions" type="AudioTransition" minOccurs="0" maxOccurs="unbounded"/&gt;       &lt;xs:element name="VideoTransitions" type="VideoTransition" minOccurs="0"/&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

element **EventData/Transitions/AudioTransitions**

diagram

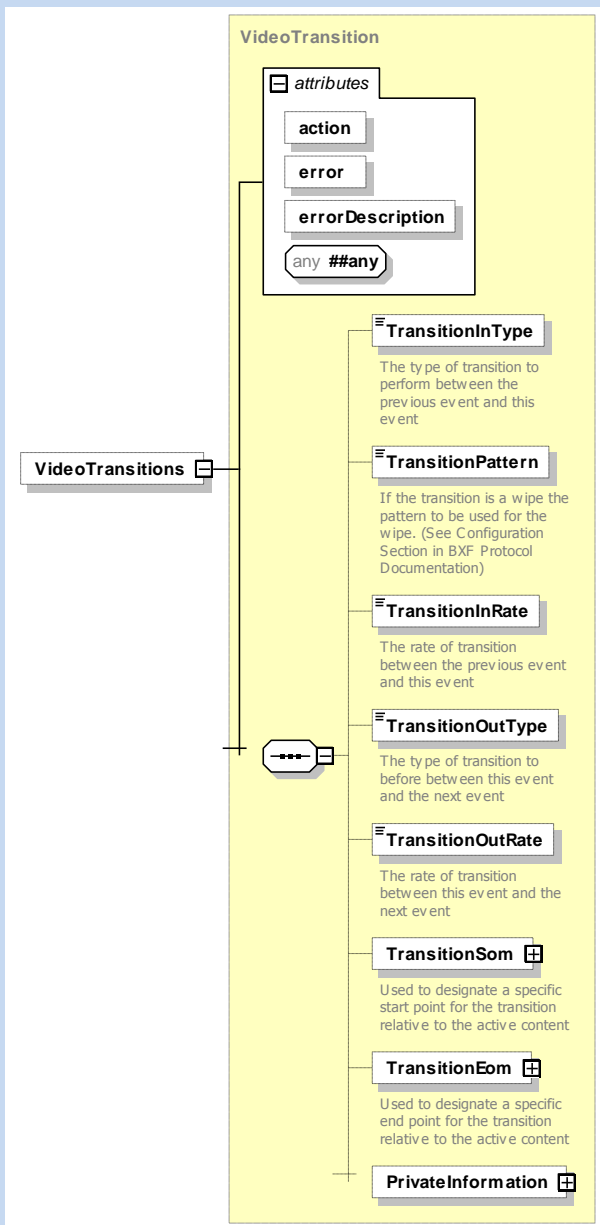


namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">AudioTransition</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
children	<a href="#">AudioMode</a> <a href="#">TransitionType</a> <a href="#">TransitionRate</a> <a href="#">AudioSwap</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			

	<a href="#">errorDescription</a> <b>xs:string</b> optional
source	<xs:element name="AudioTransitions" type="AudioTransition" minOccurs="0" maxOccurs="unbounded"/>

# element **EventData/Transitions/VideoTransitions**

diagram



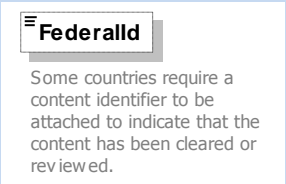
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [VideoTransition](#)



properties	isRef0 minOcc0 maxOcc1 contentcomplex																								
children	<a href="#">TransitionInType</a> <a href="#">TransitionPattern</a> <a href="#">TransitionInRate</a> <a href="#">TransitionOutType</a> <a href="#">TransitionOutRate</a> <a href="#">TransitionSom</a> <a href="#">TransitionEom</a> <a href="#">PrivateInformation</a>																								
attributes	<table><tr><td>Name</td><td>Type</td><td>Use</td><td>Default</td><td>Fixed</td><td>annotation</td></tr><tr><td><a href="#">action</a></td><td><a href="#">pmcp:actionType</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">error</a></td><td><a href="#">BxfError</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">errorDescription</a></td><td><b>xs:string</b></td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional				<a href="#">error</a>	<a href="#">BxfError</a>	optional				<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
Name	Type	Use	Default	Fixed	annotation																				
<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional																							
<a href="#">error</a>	<a href="#">BxfError</a>	optional																							
<a href="#">errorDescription</a>	<b>xs:string</b>	optional																							
source	<xs:element name="VideoTransitions" type="VideoTransition" minOccurs="0"/>																								

## element **EventData/FederalId**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	minLength 1 maxLength 255
annotation	documentation Some countries require a content identifier to be attached to indicate that the content has been cleared or reviewed.
source	<pre> &lt;xs:element name="FederalId" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Some countries require a content identifier to be attached to indicate that the content has been cleared or reviewed.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

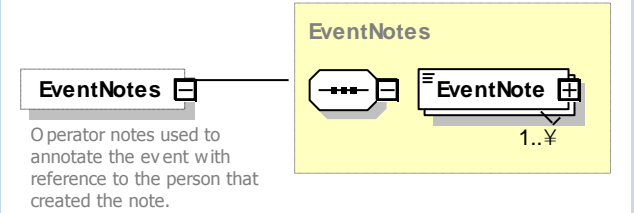
## element **EventData/FederalSource**

diagram	<p><b>FederalSource</b></p> <p>Some countries require an indication as to the original source of the content being aired. The values will vary by country. Examples are live, prerecorded, network, syndicated. (See Configuration Section in BXF Protocol Documentation)</p> <p><b>BxfText</b></p> <ul style="list-style-type: none"> <li>attributes             <ul style="list-style-type: none"> <li>lang</li> <li>size</li> <li>type</li> <li>action</li> <li>error</li> <li>errorDescription</li> <li>any ##any</li> </ul> </li> </ul>					
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
annotation	documentation Some countries require an indication as to the original source of the content being aired. The values will vary by country. Examples are live, prerecorded, network, syndicated. (See Configuration Section in BXF Protocol Documentation)					
source	<pre> &lt;xs:element name="FederalSource" type="BxfText" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Some countries require an indication as to the original source of the content being aired. The values will vary by country. Examples are live, prerecorded, network, syndicated. (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;           </pre>					

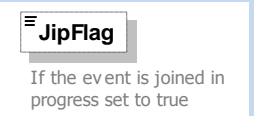
# element **EventData/EventDescription**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
annotation	documentation Description of the event					
source	<pre> &lt;xs:element name="EventDescription" type="BxfText" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Description of the event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

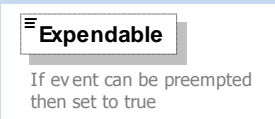
## element EventData/EventNotes

diagram	 <p>The diagram shows a yellow box labeled 'EventNotes'. Inside, there is a box labeled 'EventNote' with a multiplicity of '1..∞'. A line connects the 'EventNotes' box to the 'EventNote' box. Below the 'EventNotes' box, there is text: 'Operator notes used to annotate the event with reference to the person that created the note.'</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">EventNotes</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
children	<a href="#">EventNote</a>								
annotation	<p>documentation</p> <p>Operator notes used to annotate the event with reference to the person that created the note.</p>								
source	<pre>&lt;xs:element name="EventNotes" type="EventNotes" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Operator notes used to annotate the event with reference to the person that created the note.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

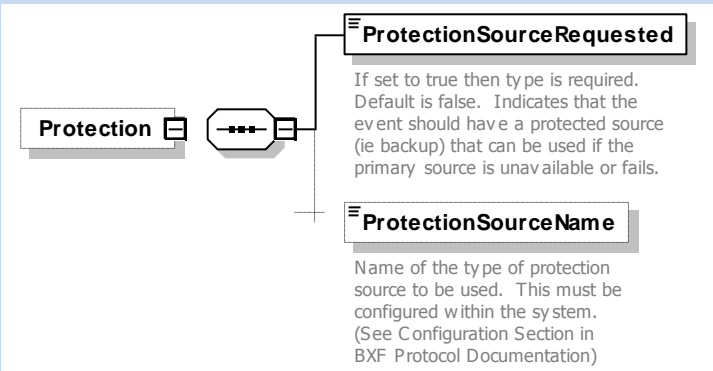
## element EventData/JipFlag

diagram	 <p>The diagram shows a box labeled 'JipFlag'. Below the box, there is text: 'If the event is joined in progress set to true'.</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:boolean</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	<p>documentation</p> <p>If the event is joined in progress set to true</p>								
source	<pre>&lt;xs:element name="JipFlag" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If the event is joined in progress set to true&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

## element EventData/Expendable

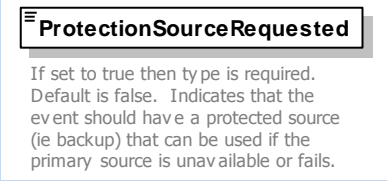
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	xs:boolean
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation If event can be preempted then set to true
source	<pre>&lt;xs:element name="Expendable" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If event can be preempted then set to true &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element EventData/Protection

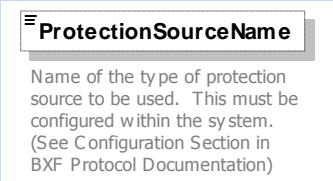
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">ProtectionSourceRequested</a> <a href="#">ProtectionSourceName</a>
source	<pre>&lt;xs:element name="Protection" minOccurs="0"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="ProtectionSourceRequested" type="xs:boolean" default="0"&gt;         &lt;xs:annotation&gt;</pre>

	<pre> &lt;xs:documentation&gt;If set to true then type is required. Default is false. Indicates that the event should have a protected source (ie backup) that can be used if the primary source is unavailable or fails.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="ProtectionSourceName" minOccurs="0"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;Name of the type of protection source to be used. This must be configured within the system. (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt; &lt;xs:restriction base="xs:string"&gt; &lt;xs:minLength value="1"/&gt; &lt;xs:maxLength value="255"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	--

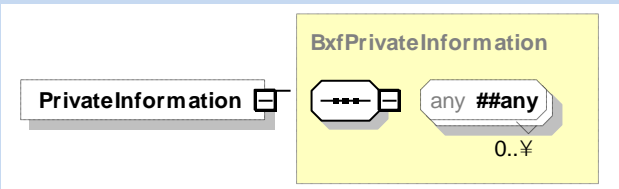
## element **EventData/Protection/ProtectionSourceRequested**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:boolean</b>
properties	isRef 0 content simple default 0
annotation	documentation If set to true then type is required. Default is false. Indicates that the event should have a protected source (ie backup) that can be used if the primary source is unavailable or fails.
source	<pre> &lt;xs:element name="ProtectionSourceRequested" type="xs:boolean" default="0"&gt; &lt;xs:annotation&gt; &lt;xs:documentation&gt;If set to true then type is required. Default is false. Indicates that the event should have a protected source (ie backup) that can be used if the primary source is unavailable or fails.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

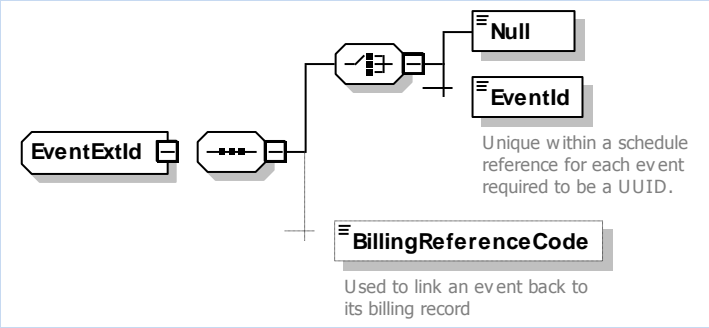
## element EventData/Protection/ProtectionSourceName

diagram	 <p><b>ProtectionSourceName</b></p> <p>Name of the type of protection source to be used. This must be configured within the system. (See Configuration Section in BXF Protocol Documentation)</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	restriction of <b>xs:string</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
facets	<table> <tr><td>minLength</td><td>1</td></tr> <tr><td>maxLength</td><td>255</td></tr> </table>	minLength	1	maxLength	255				
minLength	1								
maxLength	255								
annotation	<p>documentation</p> <p>Name of the type of protection source to be used. This must be configured within the system. (See Configuration Section in BXF Protocol Documentation)</p>								
source	<pre> &lt;xs:element name="ProtectionSourceName" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of the type of protection source to be used. This must be configured within the system. (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>								

## element EventData/PrivateInformation

diagram	 <p><b>PrivateInformation</b></p> <p><b>BxfPrivateInformation</b></p> <p>any ##any</p> <p>0..1</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">BxfPrivateInformation</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
source	<pre> &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; </pre>								

## complexType EventExtId

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
children	<a href="#">Null</a> <a href="#">EventId</a> <a href="#">BillingReferenceCode</a>
used by	elements <a href="#">BasicAsRun/AsRunEventId</a> <a href="#">EventData/EventId</a>
source	<pre> &lt;xs:complexType name="EventExtId"&gt;   &lt;xs:sequence&gt;     &lt;xs:choice&gt;       &lt;xs:element name="Null"/&gt;       &lt;xs:element name="EventId" type="Uuid"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Unique within a schedule reference for each event required to be a UUID.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:choice&gt;     &lt;xs:element name="BillingReferenceCode" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Used to link an event back to its billing record&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:minLength value="1"/&gt;           &lt;xs:maxLength value="255"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>

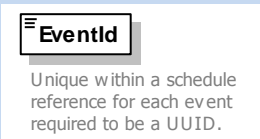
## element EventExtId/Null

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF

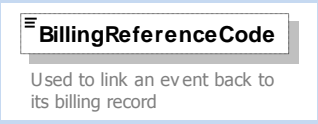


properties	isRef 0
source	<xs:element name="Null"/>

## element EventExtId/EventId

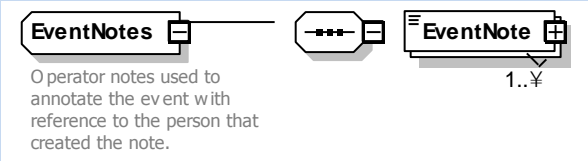
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<u>Uuid</u>
properties	isRef 0 content simple
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}\{ \-[a-fA-F0-9]{4}\}{3}\-[a-fA-F0-9]{12}
annotation	documentation Unique within a schedule reference for each event required to be a UUID.
source	<pre>&lt;xs:element name="EventId" type="Uuid"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Unique within a schedule reference for each event required to be a UUID.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element EventExtId/BillingReferenceCode

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	minLength 1 maxLength 255
annotation	documentation Used to link an event back to its billing record
source	<pre>&lt;xs:element name="BillingReferenceCode" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to link an event back to its billing record&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:simpleType&gt;</pre>

	<pre> &lt;xs:restriction base="xs:string"&gt;   &lt;xs:minLength value="1"/&gt;   &lt;xs:maxLength value="255"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	---

complexType **EventNotes**

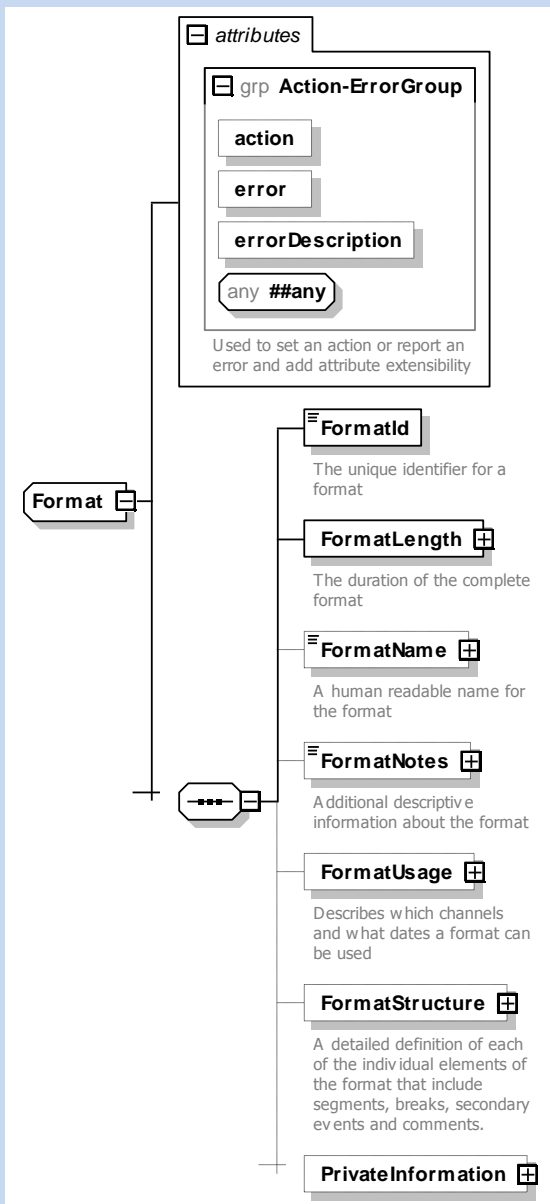
<div> <div>diagram</div> <div>  </div> </div>	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
children	<a href="#">EventNote</a>
used by	<div>elements</div> <div> <a href="#">AsRunDetail/EventNotes</a> <a href="#">EventData/EventNotes</a> </div>
annotation	<div>documentation</div> <div>Operator notes used to annotate the event with reference to the person that created the note.</div>
source	<pre> &lt;xs:complexType name="EventNotes"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Operator notes used to annotate the event with reference to the person that created the note.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="EventNote" type="BxfText" maxOccurs="unbounded"/&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>

element **EventNotes/EventNote**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	1				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
source	<xs:element name="EventNote" type="BxfText" maxOccurs="unbounded"/>					

# complexType Format

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

children

[FormatId](#) [FormatLength](#) [FormatName](#) [FormatNotes](#) [FormatUsage](#) [FormatStructure](#) [PrivateInformation](#)

used by	<a href="#">BxfMessage/BxfData/Format</a> <a href="#">ScheduledEvent/Format/Formats</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<pre> &lt;xs:complexType name="Format"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="FormatId" type="Uuid"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The unique identifier for a format&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="FormatLength" type="BxfDuration"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The duration of the complete format&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="FormatName" type="BxfText" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A human readable name for the format&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="FormatNotes" type="BxfText" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Additional descriptive information about the format&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="FormatUsage" type="FormatUsage" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Describes which channels and what dates a format can be used&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="FormatStructure" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A detailed definition of each of the individual elements of the format that include segments, breaks, secondary events and comments.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:complexType&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="FormatElements" maxOccurs="unbounded"&gt;           &lt;xs:complexType&gt;             &lt;xs:sequence&gt;               &lt;xs:element name="PrimaryElementId" type="Uuid"&gt;                 &lt;xs:annotation&gt;                   &lt;xs:documentation&gt;A UUID representing a unique identifier for this element&lt;/xs:documentation&gt;                 &lt;/xs:annotation&gt;               &lt;/xs:element&gt;               &lt;xs:element name="FormatElementType"&gt;                 &lt;xs:annotation&gt;                   &lt;xs:documentation&gt;The type of strucutre for the element such as segment or break&lt;/xs:documentation&gt;                 &lt;/xs:annotation&gt;               &lt;/xs:element&gt;               &lt;xs:simpleType&gt;                 &lt;xs:restriction base="xs:string"&gt;                   &lt;xs:enumeration value="Break"/&gt;                 &lt;/xs:restriction&gt;               &lt;/xs:simpleType&gt;             &lt;/xs:sequence&gt;           &lt;/xs:complexType&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;     &lt;/xs:complexType&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>					

```

<xs:enumeration value="Comment"/>
<xs:enumeration value="ID"/>
<xs:enumeration value="Non-commercial Break"/>
<xs:enumeration value="Segment"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="FormatOrderSequence" type="xs:positiveInteger" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Indicates the order of each of the format elements (allows placement of comments without indicating an offset time).</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="AvailNumber" type="xs:positiveInteger" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Indicates the position of a break element inside the format structure.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="TotalAvails" type="xs:positiveInteger" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Indicates the total number of break elements inside the format structure</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="AuthorizationList" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Locations that are allowed to use the avail. </xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="AuthorizedName" type="BxfText" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="IgnoreAvail" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Describes those avails that can be ignored during playback by certain locations</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:simpleContent>
      <xs:extension base="xs:boolean"/>
    </xs:simpleContent>
  </xs:complexType>
</xs:element>
<xs:choice>
  <xs:sequence>
    <xs:annotation>
      <xs:documentation>If the FormatElementType is not a Comment then the offset and duration fields are required</xs:documentation>
    </xs:annotation>
    <xs:element name="PrimaryOffset" type="BxfSmpteTime">
      <xs:annotation>
        <xs:documentation>Offset from the start of the show</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="PrimaryDuration">
      <xs:complexType>
        <xs:complexContent>

```


```

<xs:extension base="BxfDuration">
  <xs:attribute name="variable">
    <xs:annotation>
      <xs:documentation>Used to indicate if the duration can be changed based on the contents added to the format element.</xs:documentation>
    </xs:annotation>
  </xs:attribute>
</xs:extension>
</xs:complexContent>
</xs:complexType>
</xs:element>
<xs:element name="NonPrimaryElements" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>It is possible to add secondary events to a primary event such that one or more events occur at the same time or in overlapping
sequence.</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="NonPrimaryElementId" type="Uuid">
        <xs:annotation>
          <xs:documentation>A UUID representing a unique identification of the element</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="NonPrimaryOffset" maxOccurs="2">
        <xs:annotation>
          <xs:documentation>The definition of how a non-primary event should run relative to the primary event either using the start or end points of either
event.</xs:documentation>
        </xs:annotation>
        <xs:complexType>
          <xs:sequence>
            <xs:element name="OffsetTime" type="BxfSmpteTime" minOccurs="0">
              <xs:annotation>
                <xs:documentation>The time to start the event relative to the start time of the primary event</xs:documentation>
              </xs:annotation>
            </xs:element>
          </xs:sequence>
          <xs:attribute name="OffsetFrom">
            <xs:annotation>
              <xs:documentation>Defines the point of the primary event from which the offset is applied either start or end</xs:documentation>
            </xs:annotation>
            <xs:simpleType>
              <xs:restriction base="xs:string">
                <xs:enumeration value="BeginningofEvent"/>
                <xs:enumeration value="EndofEvent"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:attribute>
          <xs:attribute name="OffsetType">
            <xs:annotation>
              <xs:documentation>This describes whether the start or end point of the non-primary event should be used when the offset is
applied</xs:documentation>
            </xs:annotation>
            <xs:simpleType>
              <xs:restriction base="xs:string">
                <xs:enumeration value="Start"/>
                <xs:enumeration value="End"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:attribute>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

	<pre> &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="Direction"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Defines whether the offset value is applied as a positive or negative value&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Positive"/&gt;       &lt;xs:enumeration value="Negative"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element name="NonPrimaryDuration" type="BxfDuration"/&gt; &lt;xs:element name="NonPrimaryDescription" type="BxfText" minOccurs="0"/&gt; &lt;xs:element name="Macros" type="Macro" minOccurs="0" maxOccurs="unbounded"/&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element name="Description" type="BxfText" minOccurs="0"/&gt; &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;xs:element name="Description" type="BxfText"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If the FormatElementType is a Comment then this field is required&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:choice&gt; &lt;/xs:sequence&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	---

element **Format/FormatId**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">Uuid</a>



properties	isRef 0 content simple
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}
annotation	documentation The unique identifier for a format
source	<pre>&lt;xs:element name="FormatId" type="Uuid"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The unique identifier for a format&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### element **Format/FormatLength**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfDuration</a>
properties	isRef 0 content complex
children	<a href="#">SmpteDuration</a> <a href="#">UtcDuration</a>
annotation	documentation The duration of the complete format
source	<pre>&lt;xs:element name="FormatLength" type="BxfDuration"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The duration of the complete format&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

element **Format/FormatName**

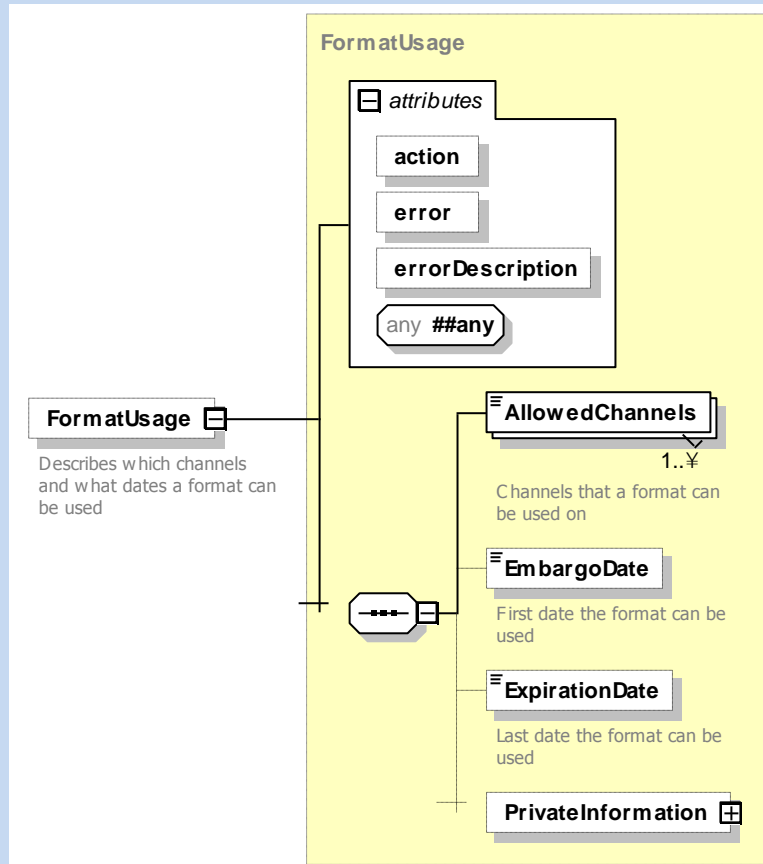
diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
annotation	documentation A human readable name for the format					
source	<pre>&lt;xs:element name="FormatName" type="BxfText" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A human readable name for the format&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

# element **Format/FormatNotes**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
annotation	documentation Additional descriptive information about the format					
source	<pre> &lt;xs:element name="FormatNotes" type="BxfText" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Additional descriptive information about the format&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

## element **Format/FormatUsage**

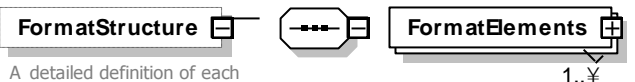
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">FormatUsage</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
children	<a href="#">AllowedChannels</a> <a href="#">EmbargoDate</a> <a href="#">ExpirationDate</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
annotation	documentation Describes which channels and what dates a format can be used					
source	<pre>&lt;xs:element name="FormatUsage" type="FormatUsage" minOccurs="0"&gt;   &lt;xs:annotation&gt;</pre>					

	<code>&lt;xs:documentation&gt;Describes which channels and what dates a format can be used&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>
--	---

## element **Format/FormatStructure**

diagram	 <p>A detailed definition of each of the individual elements of the format that include segments, breaks, secondary events and comments.</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
children	<a href="#">FormatElements</a>								
annotation	documentation A detailed definition of each of the individual elements of the format that include segments, breaks, secondary events and comments.								
source	<pre> &lt;xs:element name="FormatStructure" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A detailed definition of each of the individual elements of the format that include segments, breaks, secondary events and comments.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="FormatElements" maxOccurs="unbounded"&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;             &lt;xs:element name="PrimaryElementId" type="Uuid"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;A UUID representing a unique identifier for this element&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:element&gt;             &lt;xs:element name="FormatElementType"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;The type of structure for the element such as segment or break&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;               &lt;xs:simpleType&gt;                 &lt;xs:restriction base="xs:string"&gt;                   &lt;xs:enumeration value="Break"/&gt;                   &lt;xs:enumeration value="Comment"/&gt;                   &lt;xs:enumeration value="ID"/&gt;                   &lt;xs:enumeration value="Non-commercial Break"/&gt;                   &lt;xs:enumeration value="Segment"/&gt;                 &lt;/xs:restriction&gt;               &lt;/xs:simpleType&gt;             &lt;/xs:element&gt;             &lt;xs:element name="FormatOrderSequence" type="xs:positiveInteger" minOccurs="0"&gt; </pre>								

```

<xs:annotation>
  <xs:documentation>Indicates the order of each of the format elements (allows placement of comments without indicating an offset time).</xs:documentation>
</xs:annotation>
</xs:element>
<xs:element name="AvailNumber" type="xs:positiveInteger" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Indicates the position of a break element inside the format structure.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="TotalAvails" type="xs:positiveInteger" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Indicates the total number of break elements inside the format structure</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="AuthorizationList" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Locations that are allowed to use the avail. </xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="AuthorizedName" type="BxfText" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="IgnoreAvail" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Describes those avails that can be ignored during playback by certain locations</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:simpleContent>
      <xs:extension base="xs:boolean"/>
    </xs:simpleContent>
  </xs:complexType>
</xs:element>
<xs:choice>
  <xs:sequence>
    <xs:annotation>
      <xs:documentation>If the FormatElementType is not a Comment then the offset and duration fields are required</xs:documentation>
    </xs:annotation>
    <xs:element name="PrimaryOffset" type="BxfSmpteTime">
      <xs:annotation>
        <xs:documentation>Offset from the start of the show</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="PrimaryDuration">
      <xs:complexType>
        <xs:complexContent>
          <xs:extension base="BxfDuration">
            <xs:attribute name="variable">
              <xs:annotation>
                <xs:documentation>Used to indicate if the duration can be changed based on the contents added to the format element.</xs:documentation>
              </xs:annotation>
            </xs:attribute>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
    </xs:element>
  </xs:sequence>

```

```

</xs:complexType>
</xs:element>
<xs:element name="NonPrimaryElements" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>It is possible to add secondary events to a primary event such that one or more events occur at the same time or in overlapping
sequence.</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="NonPrimaryElementId" type="Uuid">
        <xs:annotation>
          <xs:documentation>A UUID representing a unique identification of the element</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="NonPrimaryOffset" maxOccurs="2">
        <xs:annotation>
          <xs:documentation>The definition of how a non-primary event should run relative to the primary event either using the start or end points of either
event.</xs:documentation>
        </xs:annotation>
        <xs:complexType>
          <xs:sequence>
            <xs:element name="OffsetTime" type="BxfSmpTime" minOccurs="0">
              <xs:annotation>
                <xs:documentation>The time to start the event relative to the start time of the primary event</xs:documentation>
              </xs:annotation>
            </xs:element>
          </xs:sequence>
          <xs:attribute name="OffsetFrom">
            <xs:annotation>
              <xs:documentation>Defines the point of the primary event from which the offset is applied either start or end</xs:documentation>
            </xs:annotation>
            <xs:simpleType>
              <xs:restriction base="xs:string">
                <xs:enumeration value="BeginningofEvent"/>
                <xs:enumeration value="EndofEvent"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:attribute>
          <xs:attribute name="OffsetType">
            <xs:annotation>
              <xs:documentation>This describes whether the start or end point of the non-primary event should be used when the offset is
applied</xs:documentation>
            </xs:annotation>
            <xs:simpleType>
              <xs:restriction base="xs:string">
                <xs:enumeration value="Start"/>
                <xs:enumeration value="End"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:attribute>
          <xs:attribute name="Direction">
            <xs:annotation>
              <xs:documentation>Defines whether the offset value is applied as a positive or negative value</xs:documentation>
            </xs:annotation>
          </xs:attribute>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

```

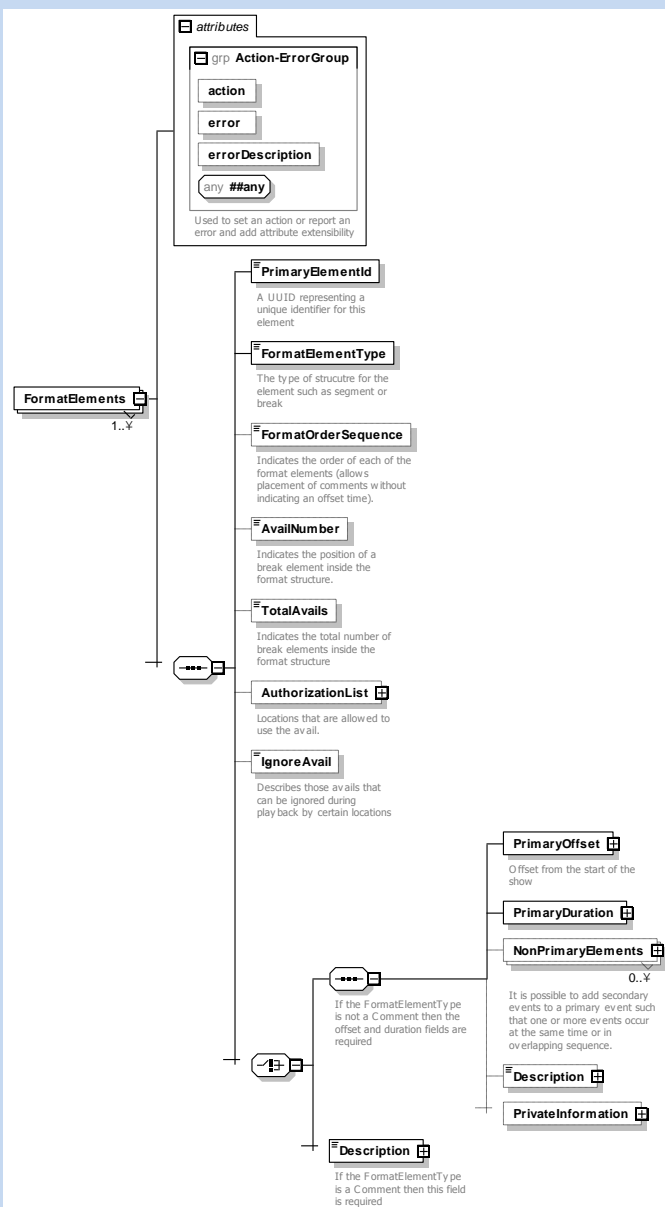
        <xs:restriction base="xs:string">
          <xs:enumeration value="Positive"/>
          <xs:enumeration value="Negative"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:attribute>
  </xs:complexType>
</xs:element>
<xs:element name="NonPrimaryDuration" type="BxfDuration"/>
<xs:element name="NonPrimaryDescription" type="BxfText" minOccurs="0"/>
<xs:element name="Macros" type="Macro" minOccurs="0" maxOccurs="unbounded"/>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Description" type="BxfText" minOccurs="0"/>
<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
</xs:sequence>
<xs:element name="Description" type="BxfText">
  <xs:annotation>
    <xs:documentation>If the FormatElementType is a Comment then this field is required</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:choice>
</xs:sequence>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>

```



# element **Format/FormatStructure/FormatElements**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

properties isRef 0  
minOcc 1

	maxOcc content	unbounded complex				
children	<a href="#">PrimaryElementId</a> <a href="#">FormatElementType</a> <a href="#">FormatOrderSequence</a> <a href="#">AvailNumber</a> <a href="#">TotalAvails</a> <a href="#">AuthorizationList</a> <a href="#">IgnoreAvail</a> <a href="#">PrimaryOffset</a> <a href="#">PrimaryDuration</a> <a href="#">NonPrimaryElements</a> <a href="#">Description</a> <a href="#">PrivateInformation</a> <a href="#">Description</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<pre> &lt;xs:element name="FormatElements" maxOccurs="unbounded"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="PrimaryElementId" type="Uuid"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;A UUID representing a unique identifier for this element&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="FormatElementType"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The type of strucutre for the element such as segment or break&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:string"&gt;             &lt;xs:enumeration value="Break"/&gt;             &lt;xs:enumeration value="Comment"/&gt;             &lt;xs:enumeration value="ID"/&gt;             &lt;xs:enumeration value="Non-commercial Break"/&gt;             &lt;xs:enumeration value="Segment"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;       &lt;xs:element name="FormatOrderSequence" type="xs:positiveInteger" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Indicates the order of each of the format elements (allows placement of comments without indicating an offset time).&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="AvailNumber" type="xs:positiveInteger" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Indicates the position of a break element inside the format structure.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="TotalAvails" type="xs:positiveInteger" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Indicates the total number of break elements inside the format structure&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="AuthorizationList" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Locations that are allowed to use the avail. &lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;             &lt;xs:element name="AuthorizedName" type="BxfText" maxOccurs="unbounded"/&gt;           &lt;/xs:sequence&gt;         &lt;/xs:complexType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; </pre>					

```

</xs:element>
<xs:element name="IgnoreAvail" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Describes those avails that can be ignored during playback by certain locations</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:simpleContent>
      <xs:extension base="xs:boolean"/>
    </xs:simpleContent>
  </xs:complexType>
</xs:element>
<xs:choice>
  <xs:sequence>
    <xs:annotation>
      <xs:documentation>If the FormatElementType is not a Comment then the offset and duration fields are required</xs:documentation>
    </xs:annotation>
    <xs:element name="PrimaryOffset" type="BxfSmpteTime">
      <xs:annotation>
        <xs:documentation>Offset from the start of the show</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="PrimaryDuration">
      <xs:complexType>
        <xs:complexContent>
          <xs:extension base="BxfDuration">
            <xs:attribute name="variable">
              <xs:annotation>
                <xs:documentation>Used to indicate if the duration can be changed based on the contents added to the format element.</xs:documentation>
              </xs:annotation>
            </xs:attribute>
          </xs:extension>
        </xs:complexContent>
      </xs:complexType>
    </xs:element>
    <xs:element name="NonPrimaryElements" minOccurs="0" maxOccurs="unbounded">
      <xs:annotation>
        <xs:documentation>It is possible to add secondary events to a primary event such that one or more events occur at the same time or in overlapping
sequence.</xs:documentation>
      </xs:annotation>
      <xs:complexType>
        <xs:sequence>
          <xs:element name="NonPrimaryElementId" type="Uuid">
            <xs:annotation>
              <xs:documentation>A UUID representing a unique identification of the element</xs:documentation>
            </xs:annotation>
          </xs:element>
          <xs:element name="NonPrimaryOffset" maxOccurs="2">
            <xs:annotation>
              <xs:documentation>The definition of how a non-primary event should run relative to the primary event either using the start or end points of either
event.</xs:documentation>
            </xs:annotation>
            <xs:complexType>
              <xs:sequence>
                <xs:element name="OffsetTime" type="BxfSmpteTime" minOccurs="0">
                  <xs:annotation>

```

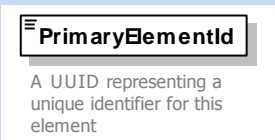
```

        <xs:documentation>The time to start the event relative to the start time of the primary event</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
  <xs:attribute name="OffsetFrom">
    <xs:annotation>
      <xs:documentation>Defines the point of the primary event from which the offset is applied either start or end</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="BeginningofEvent"/>
        <xs:enumeration value="EndofEvent"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="OffsetType">
    <xs:annotation>
      <xs:documentation>This describes whether the start or end point of the non-primary event should be used when the offset is applied</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="Start"/>
        <xs:enumeration value="End"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="Direction">
    <xs:annotation>
      <xs:documentation>Defines whether the offset value is applied as a positive or negative value</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="Positive"/>
        <xs:enumeration value="Negative"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>
</xs:element>
<xs:element name="NonPrimaryDuration" type="BxfDuration"/>
<xs:element name="NonPrimaryDescription" type="BxfText" minOccurs="0"/>
<xs:element name="Macros" type="Macro" minOccurs="0" maxOccurs="unbounded"/>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Description" type="BxfText" minOccurs="0"/>
<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
</xs:sequence>
<xs:element name="Description" type="BxfText">
  <xs:annotation>
    <xs:documentation>If the FormatElementType is a Comment then this field is required</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:choice>
</xs:sequence>

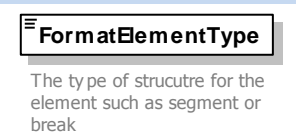
```

	<pre> &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	---

#### element **Format/FormatStructure/FormatElements/PrimaryElementId**

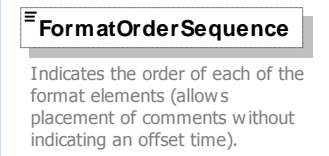
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">Uuid</a>
properties	isRef 0 content simple
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}
annotation	documentation A UUID representing a unique identifier for this element
source	<pre> &lt;xs:element name="PrimaryElementId" type="Uuid"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A UUID representing a unique identifier for this element&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element **Format/FormatStructure/FormatElements/FormatElementType**

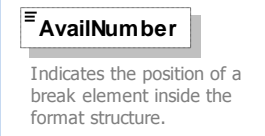
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	enumeration Break enumeration Comment enumeration ID enumeration Non-commercial Break enumeration Segment
annotation	documentation The type of structure for the element such as segment or break
source	<pre> &lt;xs:element name="FormatElementType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The type of structure for the element such as segment or break&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

	<pre> &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Break"/&gt;     &lt;xs:enumeration value="Comment"/&gt;     &lt;xs:enumeration value="ID"/&gt;     &lt;xs:enumeration value="Non-commercial Break"/&gt;     &lt;xs:enumeration value="Segment"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>
--	--

#### element **Format/FormatStructure/FormatElements/FormatOrderSequence**

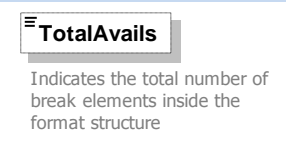
diagram	 <p><b>FormatOrderSequence</b></p> <p>Indicates the order of each of the format elements (allows placement of comments without indicating an offset time).</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:positiveInteger</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	<p>documentation</p> <p>Indicates the order of each of the format elements (allows placement of comments without indicating an offset time).</p>								
source	<pre> &lt;xs:element name="FormatOrderSequence" type="xs:positiveInteger" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates the order of each of the format elements (allows placement of comments without indicating an offset time).&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

#### element **Format/FormatStructure/FormatElements/AvailNumber**

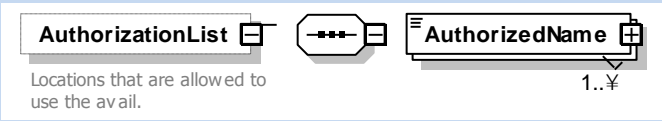
diagram	 <p><b>AvailNumber</b></p> <p>Indicates the position of a break element inside the format structure.</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:positiveInteger</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								

annotation	documentation Indicates the position of a break element inside the format structure.
source	<pre>&lt;xs:element name="AvailNumber" type="xs:positiveInteger" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates the position of a break element inside the format structure.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

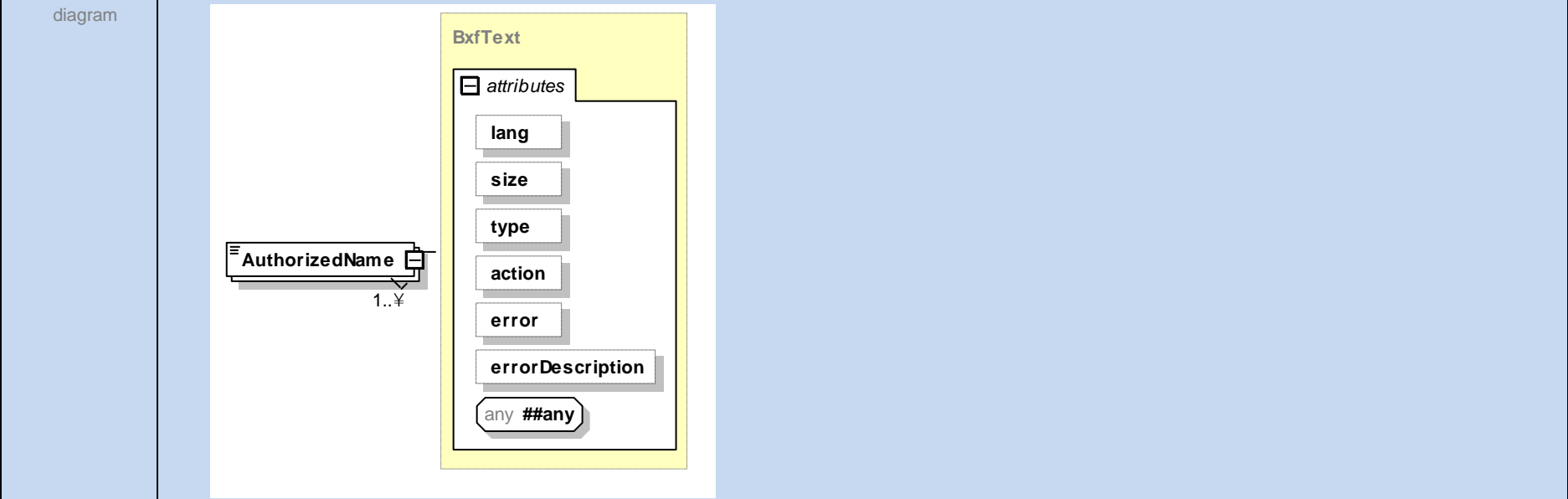
#### element **Format/FormatStructure/FormatElements/TotalAvails**

diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:positiveInteger</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	documentation Indicates the total number of break elements inside the format structure								
source	<pre>&lt;xs:element name="TotalAvails" type="xs:positiveInteger" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates the total number of break elements inside the format structure&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

#### element **Format/FormatStructure/FormatElements/AuthorizationList**

diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
children	<a href="#">AuthorizedName</a>								
annotation	documentation Locations that are allowed to use the avail.								
source	<pre>&lt;xs:element name="AuthorizationList" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Locations that are allowed to use the avail. &lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

	<pre> &lt;/xs:annotation&gt; &lt;xs:complexType&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="AuthorizedName" type="BxfText" maxOccurs="unbounded"/&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	--



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	1				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<b>xs:positiveInteger</b>				
	<a href="#">type</a>	<b>xs:string</b>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<xs:element name="AuthorizedName" type="BxfText" maxOccurs="unbounded"/>					



# element **Format/FormatStructure/FormatElements/IgnoreAvail**

diagram	<div> <div> <div> <div> <div></div> <div>IgnoreAvail</div> </div> </div> </div> <div>           Describes those avails that can be ignored during play back by certain locations         </div> </div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	extension of <b>xs:boolean</b>
properties	<div> <div>isRef</div> <div>0</div> </div> <div> <div>minOcc</div> <div>0</div> </div> <div> <div>maxOcc</div> <div>1</div> </div> <div> <div>content</div> <div>complex</div> </div>
annotation	<div>documentation</div> <div>Describes those avails that can be ignored during playback by certain locations</div>
source	<pre> &lt;xs:element name="IgnoreAvail" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Describes those avails that can be ignored during playback by certain locations&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:simpleContent&gt;       &lt;xs:extension base="xs:boolean"/&gt;     &lt;/xs:simpleContent&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>



source	<pre> &lt;xs:element name="PrimaryOffset" type="BxfSmpteTime"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Offset from the start of the show&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>
--------	--

element **Format/FormatStructure/FormatElements/PrimaryDuration**

diagram	<p>The diagram illustrates the relationship between <b>PrimaryDuration</b> and <b>BxfDuration</b>. <b>BxfDuration</b> is the base class, and <b>PrimaryDuration</b> is an extension of it. <b>PrimaryDuration</b> has two subclasses: <b>SmpteDuration</b> and <b>UtcDuration</b>. <b>PrimaryDuration</b> also has a <b>variable</b> attribute, which is used to indicate if the duration can be changed based on the contents added to the format element.</p>												
namespace	http://smpte-ra.org/schemas/2021/2008/BXF												
type	extension of <a href="#">BxfDuration</a>												
properties	isRef 0 content complex												
children	<a href="#">SmpteDuration</a> <a href="#">UtcDuration</a>												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>annotation documentation</th></tr></thead><tbody><tr><td><a href="#">variable</a></td><td></td><td></td><td></td><td></td><td>Used to indicate if the duration can be changed based on the contents added to the format element.</td></tr></tbody></table>	Name	Type	Use	Default	Fixed	annotation documentation	<a href="#">variable</a>					Used to indicate if the duration can be changed based on the contents added to the format element.
Name	Type	Use	Default	Fixed	annotation documentation								
<a href="#">variable</a>					Used to indicate if the duration can be changed based on the contents added to the format element.								
source	<pre>&lt;xs:element name="PrimaryDuration"&gt;   &lt;xs:complexType&gt;     &lt;xs:complexContent&gt;       &lt;xs:extension base="BxfDuration"&gt;         &lt;xs:attribute name="variable"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Used to indicate if the duration can be changed based on the contents added to the format element.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:attribute&gt;       &lt;/xs:extension&gt;     &lt;/xs:complexContent&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>												

	<pre> &lt;/xs:attribute&gt; &lt;/xs:extension&gt; &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	---

attribute **Format/FormatStructure/FormatElements/PrimaryDuration/@variable**

properties	isRef 0
annotation	documentation Used to indicate if the duration can be changed based on the contents added to the format element.
source	<pre> &lt;xs:attribute name="variable"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to indicate if the duration can be changed based on the contents added to the format element.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

element **Format/FormatStructure/FormatElements/NonPrimaryElements**

diagram		
namespace	http://smpte-ra.org/schemas/2021/2008/BXF	
properties	isRef 0	minOcc 0
	maxOcc unbounded	content complex
children	<a href="#">NonPrimaryElementId</a> <a href="#">NonPrimaryOffset</a> <a href="#">NonPrimaryDuration</a> <a href="#">NonPrimaryDescription</a> <a href="#">Macros</a>	

annotation	documentation It is possible to add secondary events to a primary event such that one or more events occur at the same time or in overlapping sequence.
source	<pre> &lt;xs:element name="NonPrimaryElements" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;It is possible to add secondary events to a primary event such that one or more events occur at the same time or in overlapping sequence.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="NonPrimaryElementId" type="Uuid"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;A UUID representing a unique identification of the element&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="NonPrimaryOffset" maxOccurs="2"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The definition of how a non-primary event should run relative to the primary event either using the start or end points of either event.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;             &lt;xs:element name="OffsetTime" type="BxfSmpteTime" minOccurs="0"&gt;               &lt;xs:annotation&gt;                 &lt;xs:documentation&gt;The time to start the event relative to the start time of the primary event&lt;/xs:documentation&gt;               &lt;/xs:annotation&gt;             &lt;/xs:element&gt;           &lt;/xs:sequence&gt;           &lt;xs:attribute name="OffsetFrom"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Defines the point of the primary event from which the offset is applied either start or end&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;             &lt;xs:simpleType&gt;               &lt;xs:restriction base="xs:string"&gt;                 &lt;xs:enumeration value="BeginningofEvent"/&gt;                 &lt;xs:enumeration value="EndofEvent"/&gt;               &lt;/xs:restriction&gt;             &lt;/xs:simpleType&gt;           &lt;/xs:attribute&gt;           &lt;xs:attribute name="OffsetType"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;This describes whether the start or end point of the non-primary event should be used when the offset is applied&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;             &lt;xs:simpleType&gt;               &lt;xs:restriction base="xs:string"&gt;                 &lt;xs:enumeration value="Start"/&gt;                 &lt;xs:enumeration value="End"/&gt;               &lt;/xs:restriction&gt;             &lt;/xs:simpleType&gt;           &lt;/xs:attribute&gt;           &lt;xs:attribute name="Direction"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Defines whether the offset value is applied as a positive or negative value&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;             &lt;xs:simpleType&gt;               &lt;xs:restriction base="xs:string"&gt; </pre>



diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
properties	isRef	0				
	minOcc	1				
	maxOcc	2				
	content	complex				
children	<a href="#">OffsetTime</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">OffsetFrom</a>	derived by: xs:string				documentation Defines the point of the primary event from which the offset is applied either start or end
	<a href="#">OffsetType</a>	derived by: xs:string				documentation This describes whether the start or end point of the non-primary event should be used when the offset is applied
	<a href="#">Direction</a>	derived by: xs:string				documentation Defines whether the offset value is applied as a positive or negative value
annotation	documentation The definition of how a non-primary event should run relative to the primary event either using the start or end points of either event.					
source	<pre>&lt;xs:element name="NonPrimaryOffset" maxOccurs="2"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The definition of how a non-primary event should run relative to the primary event either using the start or end points of either event.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;</pre>					

```

<xs:complexType>
  <xs:sequence>
    <xs:element name="OffsetTime" type="BxfSmpteTime" minOccurs="0">
      <xs:annotation>
        <xs:documentation>The time to start the event relative to the start time of the primary event</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
  <xs:attribute name="OffsetFrom">
    <xs:annotation>
      <xs:documentation>Defines the point of the primary event from which the offset is applied either start or end</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="BeginningofEvent"/>
        <xs:enumeration value="EndofEvent"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="OffsetType">
    <xs:annotation>
      <xs:documentation>This describes whether the start or end point of the non-primary event should be used when the offset is applied</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="Start"/>
        <xs:enumeration value="End"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="Direction">
    <xs:annotation>
      <xs:documentation>Defines whether the offset value is applied as a positive or negative value</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="Positive"/>
        <xs:enumeration value="Negative"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>
</xs:element>

```

attribute **Format/FormatStructure/FormatElements/NonPrimaryElements/NonPrimaryOffset/@OffsetFrom**

type	restriction of <b>xs:string</b>	
properties	isRef	0
facets	enumeration	BeginningofEvent
	enumeration	EndofEvent
annotation	documentation Defines the point of the primary event from which the offset is applied either start or end	



source	<pre> &lt;xs:attribute name="OffsetFrom"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Defines the point of the primary event from which the offset is applied either start or end&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="BeginningofEvent"/&gt;       &lt;xs:enumeration value="EndofEvent"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>
--------	--

#### attribute **Format/FormatStructure/FormatElements/NonPrimaryElements/NonPrimaryOffset/@OffsetType**

type	restriction of <b>xs:string</b>
properties	isRef 0
facets	enumeration Start enumeration End
annotation	documentation This describes whether the start or end point of the non-primary event should be used when the offset is applied
source	<pre> &lt;xs:attribute name="OffsetType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This describes whether the start or end point of the non-primary event should be used when the offset is applied&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Start"/&gt;       &lt;xs:enumeration value="End"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **Format/FormatStructure/FormatElements/NonPrimaryElements/NonPrimaryOffset/@Direction**

type	restriction of <b>xs:string</b>
properties	isRef 0
facets	enumeration Positive enumeration Negative
annotation	documentation Defines whether the offset value is applied as a positive or negative value
source	<pre> &lt;xs:attribute name="Direction"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Defines whether the offset value is applied as a positive or negative value&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Positive"/&gt;       &lt;xs:enumeration value="Negative"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

</xs:simpleType>

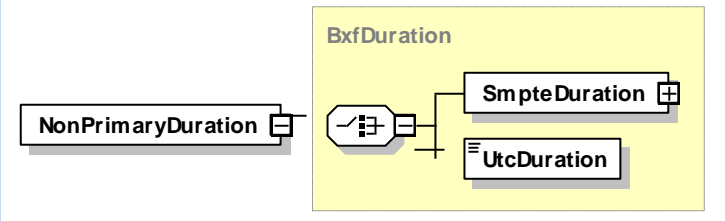
</xs:attribute>

element **Format/FormatStructure/FormatElements/NonPrimaryElements/NonPrimaryOffset/OffsetTime**

diagram	<div><div><div><div><div><div></div><div>OffsetTime</div></div><div>The time to start the event relative to the start time of the primary event</div></div></div><div><div><div><div><div><div></div><div>BxfSmpteTime</div></div><div><div><div><div><div><div></div><div>attributes</div></div><div><div><div><div><div><div></div><div>frameRate</div><div>Specifies the number of frames per second and should always be provided if known</div></div><div><div><div><div><div><div></div><div>framecount</div></div><div><div><div><div><div><div></div><div>action</div></div><div><div><div><div><div><div></div><div>error</div></div><div><div><div><div><div><div></div><div>errorDescription</div></div><div><div><div><div><div><div></div><div>any ##any</div></div></div></div></div></div></div></div></div></div></div></div></div></div><div><div><div><div><div><div></div><div>SmpteTimeCode</div></div><div>Specifies duration in the format HH:MM:SSpFF where "p" can be either a ":" or "." to indicate drop frame or non-drop frame. For details refer to SMPTE 258M, section 8.</div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div>					
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfSmpteTime</a>					
properties	isRef	0	minOcc	0	maxOcc	1
	content	complex				
children	<a href="#">SmpteTimeCode</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">frameRate</a>	xs:decimal				documentation Specifies the number of frames per second and should always be provided if known
	<a href="#">framecount</a>	xs:integer				

	<a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	<a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	optional optional optional
annotation	documentation The time to start the event relative to the start time of the primary event		
source	<xs:element name="OffsetTime" type="BxfSmpTime" minOccurs="0"> <xs:annotation> <xs:documentation>The time to start the event relative to the start time of the primary event</xs:documentation> </xs:annotation> </xs:element>		

element **Format/FormatStructure/FormatElements/NonPrimaryElements/NonPrimaryDuration**

diagram			
namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">BxfDuration</a>		
properties	isRef 0 content complex		
children	<a href="#">SmpteDuration</a> <a href="#">UtcDuration</a>		
source	<xs:element name="NonPrimaryDuration" type="BxfDuration"/>		

element **Format/FormatStructure/FormatElements/NonPrimaryElements/NonPrimaryDescription**

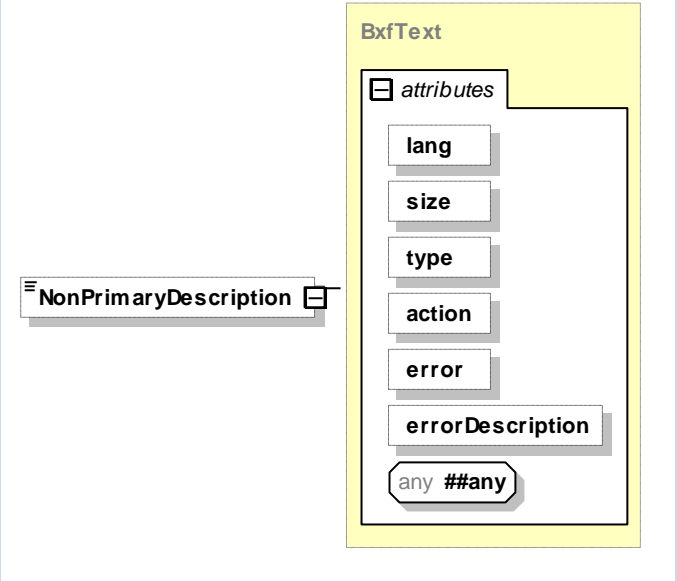
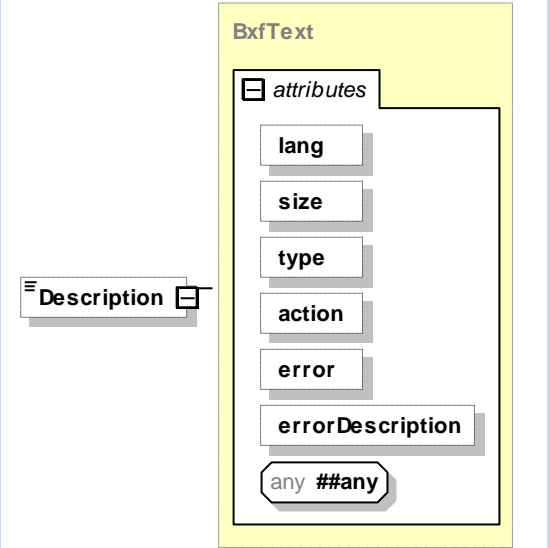
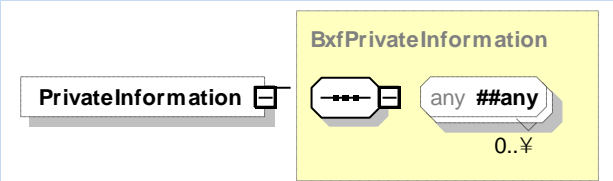
diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="NonPrimaryDescription" type="BxfText" minOccurs="0"/>					

diagram	<pre>graph TD     Macro[Macro] --- Attributes[attributes]     Macro --- MacroName[MacroName]     Macro --- MacroParameterString[MacroParameterString]     Macro --- PrivateInformation[PrivateInformation]     Attributes --- action[action]     Attributes --- error[error]     Attributes --- errorDescription[errorDescription]     Attributes --- any[any ##any]</pre>							
namespace	http://smpte-ra.org/schemas/2021/2008/BXF							
type	<a href="#">Macro</a>							
properties	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
children	<a href="#">MacroName</a> <a href="#">MacroParameterString</a> <a href="#">PrivateInformation</a>							
attributes	Name	Type	Use	Default	Fixed	annotation		
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional					
	<a href="#">error</a>	<a href="#">BxfError</a>	optional					
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional					
source	<xs:element name="Macros" type="Macro" minOccurs="0" maxOccurs="unbounded"/>							

element **Format/FormatStructure/FormatElements/Description**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="Description" type="BxfText" minOccurs="0"/>					

element **Format/FormatStructure/FormatElements/PrivateInformation**

diagram						
---------	---	--	--	--	--	--



	<div> <div>&lt;xs:documentation&gt;</div> <div>If the FormatElementType is a Comment then this field is required</div> <div>&lt;/xs:documentation&gt;</div> <div>&lt;/xs:annotation&gt;</div> <div>&lt;/xs:element&gt;</div> </div>
--	---

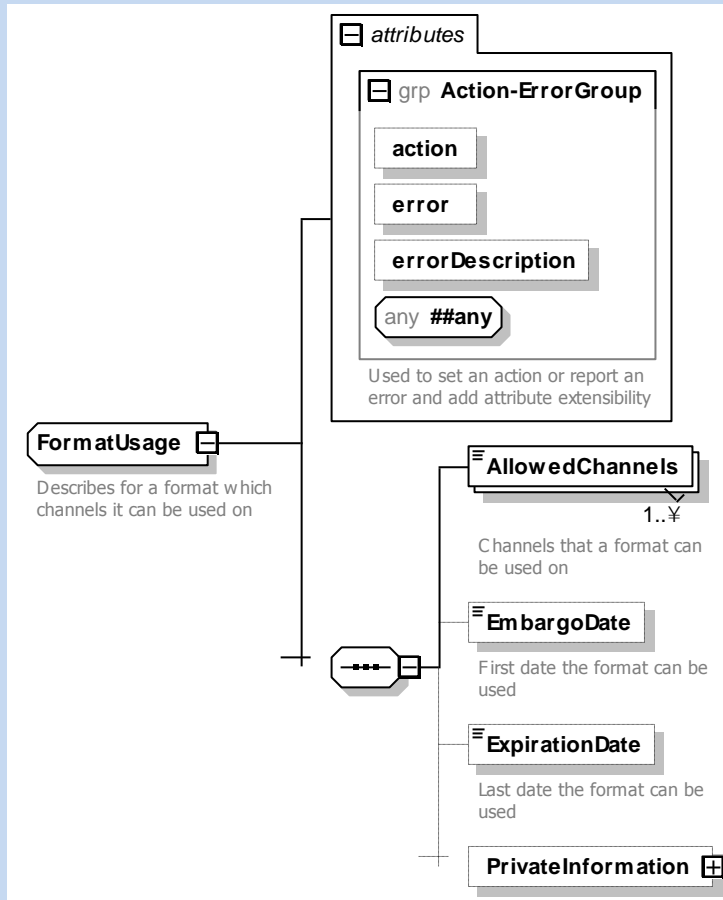
element
 Format/PrivateInformation

<div> <div>diagram</div> <div> </div> </div>	
<div> <div>namespace</div> <div>http://smpte-ra.org/schemas/2021/2008/BXF</div> </div>	
<div> <div>type</div> <div><a href="#">BxfPrivateInformation</a></div> </div>	
<div> <div>properties</div> <div> <div>isRef</div> <div>0</div> <div>minOcc</div> <div>0</div> <div>maxOcc</div> <div>1</div> <div>content</div> <div>complex</div> </div> </div>	
<div> <div>source</div> <div> <div>&lt;xs:element</div> <div>name="PrivateInformation"</div> <div>type="BxfPrivateInformation"</div> <div>minOccurs="0"/&gt;</div> </div> </div>	



## complexType FormatUsage

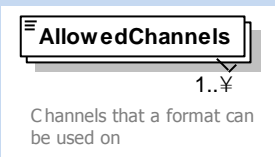
diagram



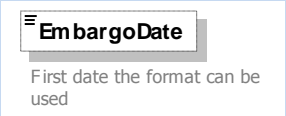
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
children	<a href="#">AllowedChannels</a> <a href="#">EmbargoDate</a> <a href="#">ExpirationDate</a> <a href="#">PrivateInformation</a>					
used by	element	<a href="#">Format/FormatUsage</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
annotation	documentation Describes for a format which channels it can be used on					
source	<pre>&lt;xs:complexType name="FormatUsage"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Describes for a format which channels it can be used on&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;</pre>					

	<pre> &lt;xs:sequence&gt;   &lt;xs:element name="AllowedChannels" type="BxfShortName" maxOccurs="unbounded"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Channels that a format can be used on&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:element&gt;   &lt;xs:element name="EmbargoDate" type="xs:date" minOccurs="0"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;First date the format can be used&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:element&gt;   &lt;xs:element name="ExpirationDate" type="xs:date" minOccurs="0"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Last date the format can be used&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:element&gt;   &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	---

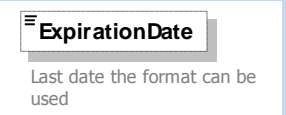
#### element **FormatUsage/AllowedChannels**

diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">BxfShortName</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>1</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	1	maxOcc	unbounded	content	simple
isRef	0								
minOcc	1								
maxOcc	unbounded								
content	simple								
facets	<table> <tr><td>maxLength</td><td>7</td></tr> </table>	maxLength	7						
maxLength	7								
annotation	documentation Channels that a format can be used on								
source	<pre> &lt;xs:element name="AllowedChannels" type="BxfShortName" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Channels that a format can be used on&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

## element **FormatUsage/EmbargoDate**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:date</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation First date the format can be used
source	<pre>&lt;xs:element name="EmbargoDate" type="xs:date" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;First date the format can be used&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element **FormatUsage/ExpirationDate**

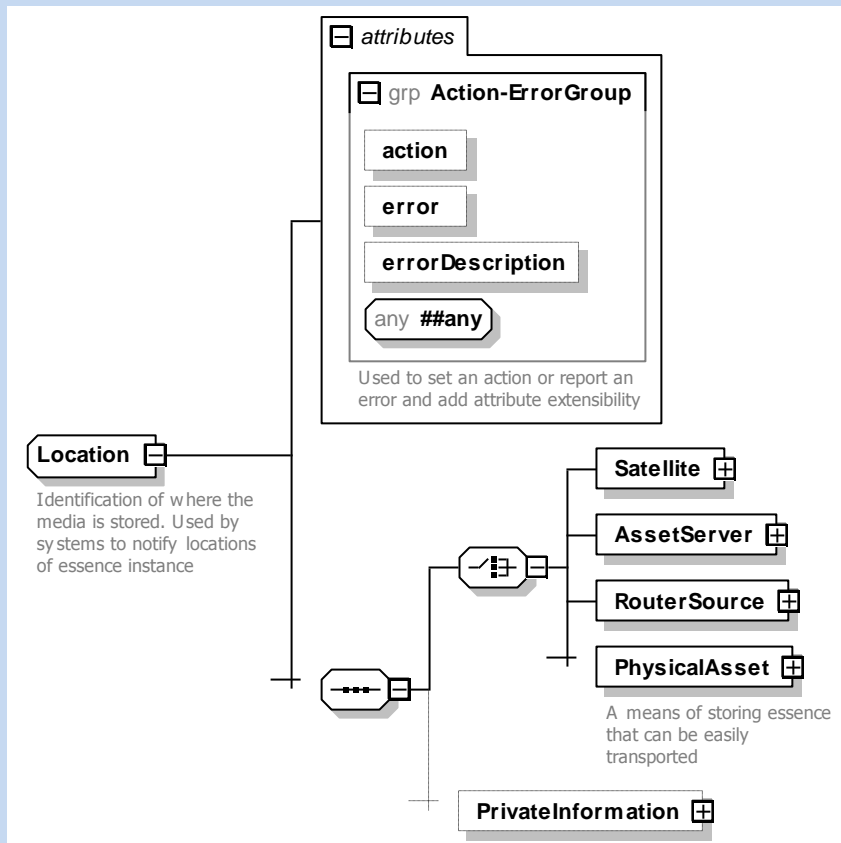
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:date</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Last date the format can be used
source	<pre>&lt;xs:element name="ExpirationDate" type="xs:date" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Last date the format can be used&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

element **FormatUsage/PrivateInformation**

diagram	<p>The diagram illustrates the <b>PrivateInformation</b> element. It features a yellow box labeled <b>BxfPrivateInformation</b> containing a constraint: <b>any ##any</b> with a cardinality of <b>0..∞</b>. A line connects the <b>PrivateInformation</b> element to this constraint box.</p>		
namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">BxfPrivateInformation</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	complex	
source	<code>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</code>		

## complexType Location

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [Satellite](#) [AssetServer](#) [RouterSource](#) [PhysicalAsset](#) [PrivateInformation](#)

used by element [MediaLocation/Location](#)

attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			

annotation documentation  
Identification of where the media is stored. Used by systems to notify locations of essence instance

```
<xs:complexType name="Location">
  <xs:annotation>
    <xs:documentation>Identification of where the media is stored. Used by systems to notify locations of essence instance</xs:documentation>
  </xs:annotation>
  <xs:sequence>
    <xs:choice>
      <xs:element name="Satellite">
```

```

<xs:complexType>
  <xs:sequence>
    <xs:element name="SatelliteName" type="BxfText"/>
    <xs:element name="Transponder">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="Polarity">
            <xs:annotation>
              <xs:documentation>Left or Right for circularly polarized DBS satellites, Horizontal or Vertical for linearly polarized satellites</xs:documentation>
            </xs:annotation>
            <xs:simpleType>
              <xs:restriction base="xs:string">
                <xs:enumeration value="Vertical"/>
                <xs:enumeration value="Horizontal"/>
                <xs:enumeration value="Right"/>
                <xs:enumeration value="Left"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
          <xs:element name="TransponderNumber">
            <xs:annotation>
              <xs:documentation>Frequency of transponder in MHz</xs:documentation>
            </xs:annotation>
            <xs:simpleType>
              <xs:restriction base="xs:integer">
                <xs:minInclusive value="0"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element name="Receiver" type="BxfText">
      <xs:annotation>
        <xs:documentation>A physical device that is used to tune a signal from the satellite and provides an output for media.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Encoder" type="BxfText">
      <xs:annotation>
        <xs:documentation>The desitination recording device for the media.</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
  <xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>
</xs:element>
<xs:element name="AssetServer">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="PathName" type="BxfUri">
        <xs:annotation>
          <xs:documentation>Shall include a fully qualified filename</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="ReferenceName" type="BxfText" minOccurs="0"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

```

<xs:element name="UserName" type="BxfText" minOccurs="0"/>
<xs:element name="Password" type="BxfText" minOccurs="0"/>
<xs:element name="Description" type="BxfText" minOccurs="0"/>
</xs:sequence>
<xs:attribute name="playoutAllowed" type="xs:boolean" use="required"/>
<xs:attribute name="fileTransferAllowed" type="xs:boolean" use="required"/>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>
</xs:element>
<xs:element name="RouterSource">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Name" type="BxfText">
        <xs:annotation>
          <xs:documentation>(See Configuration Section in BXF Protocol Documentation)</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="CrossPoint" type="BxfText" minOccurs="0"/>
    </xs:sequence>
    <xs:attributeGroup ref="Action-ErrorGroup"/>
  </xs:complexType>
</xs:element>
<xs:element name="PhysicalAsset">
  <xs:annotation>
    <xs:documentation>A means of storing essence that can be easily transported</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="MediaReferenceName" type="BxfText"/>
      <xs:element name="PhysicalLocation" minOccurs="0">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="Dimension" maxOccurs="unbounded">
              <xs:complexType>
                <xs:attribute name="name">
                  <xs:simpleType>
                    <xs:restriction base="xs:string">
                      <xs:minLength value="1"/>
                      <xs:maxLength value="255"/>
                    </xs:restriction>
                  </xs:simpleType>
                </xs:attribute>
                <xs:attribute name="value">
                  <xs:simpleType>
                    <xs:restriction base="xs:string">
                      <xs:minLength value="1"/>
                      <xs:maxLength value="255"/>
                    </xs:restriction>
                  </xs:simpleType>
                </xs:attribute>
              </xs:complexType>
            </xs:element>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

```

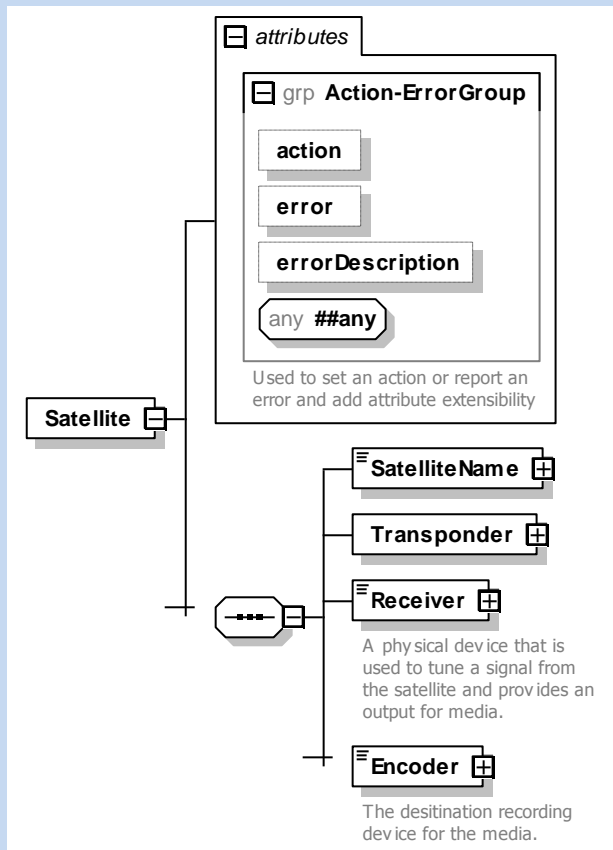
</xs:sequence>
<xs:attribute name="assetName" use="required">
  <xs:annotation>
    <xs:documentation>(See Configuration Section in BXF Protocol Documentation)</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="1"/>
      <xs:maxLength value="255"/>
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>
</xs:element>
</xs:choice>
<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
</xs:sequence>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>

```



## element Location/Satellite

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
properties	isRef	0				
	content	complex				
children	<a href="#">SatelliteName</a> <a href="#">Transponder</a> <a href="#">Receiver</a> <a href="#">Encoder</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<pre>&lt;xs:element name="Satellite"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="SatelliteName" type="BxfText"/&gt;       &lt;xs:element name="Transponder"&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;             &lt;xs:element name="Polarity"&gt;</pre>					

```

<xs:annotation>
  <xs:documentation>Left or Right for circularly polarized DBS satellites, Horizontal or Vertical for linearly polarized satellites</xs:documentation>
</xs:annotation>
<xs:simpleType>
  <xs:restriction base="xs:string">
    <xs:enumeration value="Vertical"/>
    <xs:enumeration value="Horizontal"/>
    <xs:enumeration value="Right"/>
    <xs:enumeration value="Left"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="TransponderNumber">
  <xs:annotation>
    <xs:documentation>Frequency of transponder in MHz</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:integer">
      <xs:minInclusive value="0"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Receiver" type="BxfText">
  <xs:annotation>
    <xs:documentation>A physical device that is used to tune a signal from the satellite and provides an output for media.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="Encoder" type="BxfText">
  <xs:annotation>
    <xs:documentation>The desitination recording device for the media.</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:sequence>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>
</xs:element>

```

element **Location/Satellite/SatelliteName**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="SatelliteName" type="BxfText"/>					

# element Location/Satellite/Transponder

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 content complex
children	<a href="#">Polarity</a> <a href="#">TransponderNumber</a>
source	<pre> &lt;xs:element name="Transponder"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Polarity"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Left or Right for circularly polarized DBS satellites, Horizontal or Vertical for linearly polarized satellites&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:string"&gt;             &lt;xs:enumeration value="Vertical"/&gt;             &lt;xs:enumeration value="Horizontal"/&gt;             &lt;xs:enumeration value="Right"/&gt;             &lt;xs:enumeration value="Left"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;       &lt;xs:element name="TransponderNumber"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Frequency of transponder in MHz&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:simpleType&gt;           &lt;xs:restriction base="xs:integer"&gt;             &lt;xs:minInclusive value="0"/&gt;           &lt;/xs:restriction&gt;         &lt;/xs:simpleType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

# element Location/Satellite/Transponder/Polarity

diagram	<div> <div> <div></div> <div>Polarity</div> </div> <div>           Left or Right for circularly polarized DBS satellites, Horizontal or Vertical for linearly polarized satellites         </div> </div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
properties	isRef 0 content simple
facets	enumeration Vertical enumeration Horizontal enumeration Right enumeration Left
annotation	documentation Left or Right for circularly polarized DBS satellites, Horizontal or Vertical for linearly polarized satellites
source	<pre> &lt;xs:element name="Polarity"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Left or Right for circularly polarized DBS satellites, Horizontal or Vertical for linearly polarized satellites&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Vertical"/&gt;       &lt;xs:enumeration value="Horizontal"/&gt;       &lt;xs:enumeration value="Right"/&gt;       &lt;xs:enumeration value="Left"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt;           </pre>

# element Location/Satellite/Transponder/TransponderNumber

diagram	<div> <div> <div></div> <div>TransponderNumber</div> </div> <div>           Frequency of transponder in MHz         </div> </div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:integer</b>
properties	isRef 0 content simple
facets	minInclusive 0
annotation	documentation Frequency of transponder in MHz
source	<pre> &lt;xs:element name="TransponderNumber"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Frequency of transponder in MHz           </pre>

	<pre>&lt;xs:documentation&gt;Frequency of transponder in MHz&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:simpleType&gt;   &lt;xs:restriction base="xs:integer"&gt;     &lt;xs:minInclusive value="0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;/xs:element&gt;</pre>
--	---

element **Location/Satellite/Receiver**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
annotation	documentation A physical device that is used to tune a signal from the satellite and provides an output for media.					
source	<pre>&lt;xs:element name="Receiver" type="BxfText"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A physical device that is used to tune a signal from the satellite and provides an output for media.&lt;/xs:documentation&gt;</pre>					

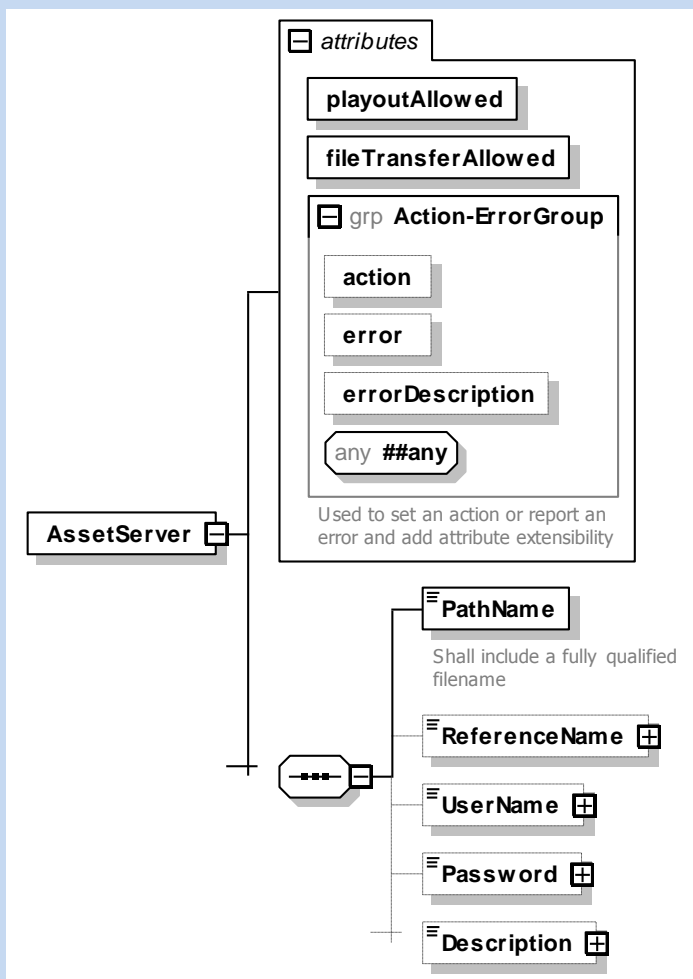
	<code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>
--	---

element **Location/Satellite/Encoder**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
annotation	documentation The desitination recording device for the media.					
source	<code>&lt;xs:element name="Encoder" type="BxfText"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;The desitination recording device for the media.&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>					

# element **Location/AssetServer**

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
properties	isRef	0				
	content	complex				
children	<a href="#">PathName</a> <a href="#">ReferenceName</a> <a href="#">UserName</a> <a href="#">Password</a> <a href="#">Description</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">playoutAllowed</a>	xs:boolean	required			
	<a href="#">fileTransferAllowed</a>	xs:boolean	required			
	<a href="#">action</a>	pmcp:actionType	optional			
	<a href="#">error</a>	BxfError	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="AssetServer">					



	<pre> &lt;xs:complexType&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="PathName" type="BxfUri"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Shall include a fully qualified filename&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ReferenceName" type="BxfText" minOccurs="0"/&gt;     &lt;xs:element name="UserName" type="BxfText" minOccurs="0"/&gt;     &lt;xs:element name="Password" type="BxfText" minOccurs="0"/&gt;     &lt;xs:element name="Description" type="BxfText" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attribute name="playoutAllowed" type="xs:boolean" use="required"/&gt;   &lt;xs:attribute name="fileTransferAllowed" type="xs:boolean" use="required"/&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	--

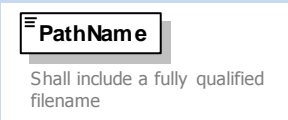
#### attribute Location/AssetServer/@playoutAllowed

type	<b>xs:boolean</b>
properties	<div>isRef 0</div> <div>use required</div>
source	<code>&lt;xs:attribute name="playoutAllowed" type="xs:boolean" use="required"/&gt;</code>

#### attribute Location/AssetServer/@fileTransferAllowed

type	<b>xs:boolean</b>
properties	<div>isRef 0</div> <div>use required</div>
source	<code>&lt;xs:attribute name="fileTransferAllowed" type="xs:boolean" use="required"/&gt;</code>

#### element Location/AssetServer/PathName

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfUri</a>
properties	<div>isRef 0</div> <div>content simple</div>
annotation	<div>documentation</div> <div>Shall include a fully qualified filename</div>
source	<pre> &lt;xs:element name="PathName" type="BxfUri"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Shall include a fully qualified filename&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>



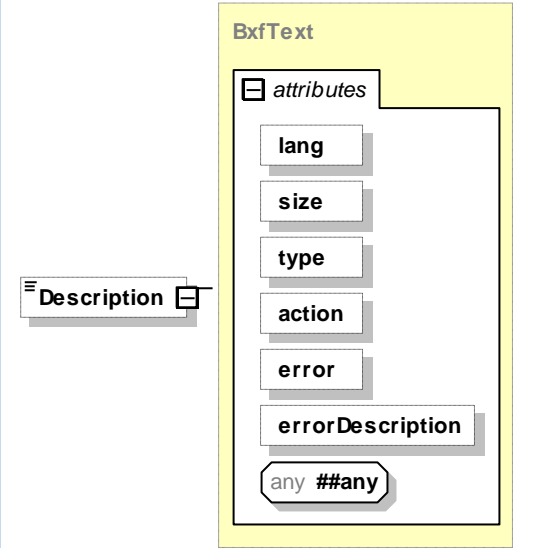
element Location/AssetServer/UserName

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="UserName" type="BxfText" minOccurs="0"/>					

element **Location/AssetServer/Password**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="Password" type="BxfText" minOccurs="0"/>					

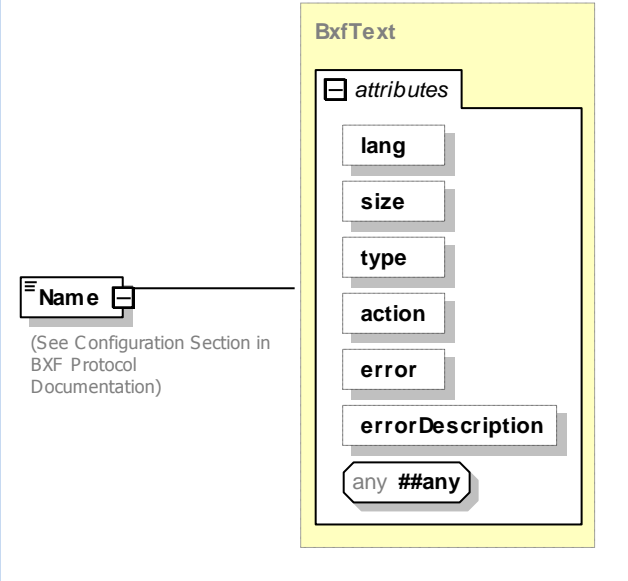
element Location/AssetServer/Description

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="Description" type="BxfText" minOccurs="0"/>					

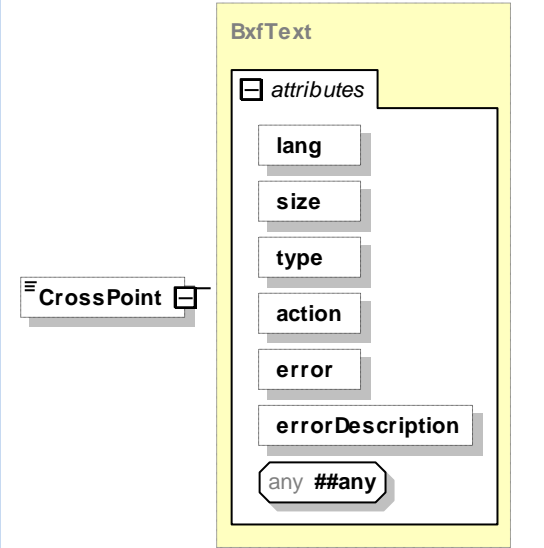
# element Location/RouterSource

diagram	<p>The diagram illustrates the structure of the <b>RouterSource</b> element. It is a complex type containing a <b>Name</b> element (with an annotation: (See Configuration Section in BXF Protocol Documentation)) and a <b>CrossPoint</b> element. Additionally, it has an <b>attributes</b> group containing an <b>Action-ErrorGroup</b> (which includes <b>action</b>, <b>error</b>, <b>errorDescription</b>, and <b>any ##any</b>) and a note: Used to set an action or report an error and add attribute extensibility.</p>																								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF																								
properties	isRef 0 content complex																								
children	<a href="#">Name</a> <a href="#">CrossPoint</a>																								
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>annotation</th></tr></thead><tbody><tr><td><a href="#">action</a></td><td><a href="#">pmcp:actionType</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">error</a></td><td><a href="#">BxfError</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">errorDescription</a></td><td>xs:string</td><td>optional</td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional				<a href="#">error</a>	<a href="#">BxfError</a>	optional				<a href="#">errorDescription</a>	xs:string	optional			
Name	Type	Use	Default	Fixed	annotation																				
<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional																							
<a href="#">error</a>	<a href="#">BxfError</a>	optional																							
<a href="#">errorDescription</a>	xs:string	optional																							
source	<pre>&lt;xs:element name="RouterSource"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Name" type="BxfText"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;(See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="CrossPoint" type="BxfText" minOccurs="0"/&gt;     &lt;/xs:sequence&gt;     &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>																								

element **Location/RouterSource/Name**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
annotation	documentation (See Configuration Section in BXF Protocol Documentation)					
source	<pre>&lt;xs:element name="Name" type="BxfText"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;(See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

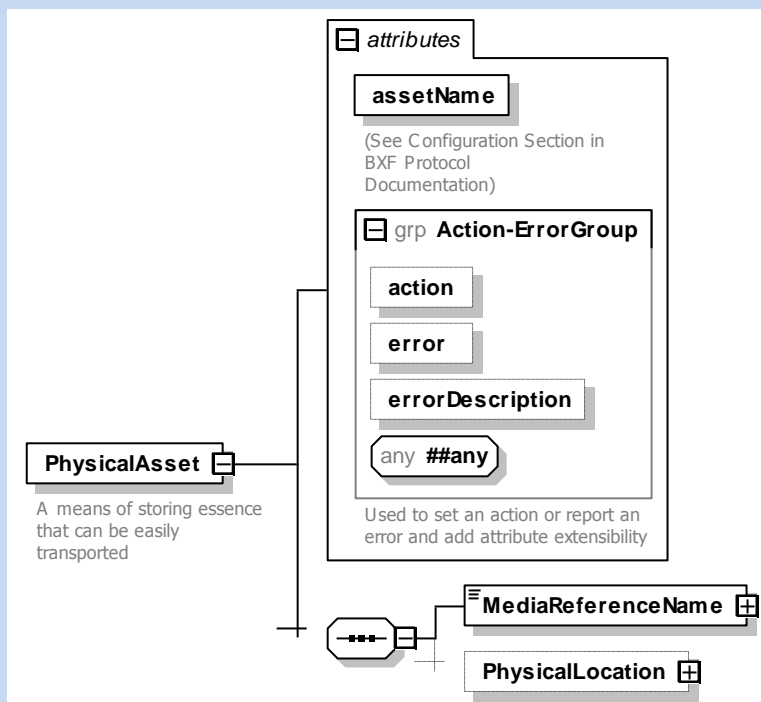
element **Location/RouterSource/CrossPoint**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
source	<xs:element name="CrossPoint" type="BxfText" minOccurs="0"/>					



## element Location/PhysicalAsset

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
properties	isRef	0	content	complex		
children	<a href="#">MediaReferenceName</a> <a href="#">PhysicalLocation</a>					
attributes	Name <a href="#">assetName</a>  <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type derived by: <b>xs:string</b>  <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use required  optional optional optional	Default	Fixed	annotation documentation (See Configuration Section in BXF Protocol Documentation)
annotation	documentation A means of storing essence that can be easily transported					
source	<pre>&lt;xs:element name="PhysicalAsset"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A means of storing essence that can be easily transported&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="MediaReferenceName" type="BxfText"/&gt;       &lt;xs:element name="PhysicalLocation" minOccurs="0"&gt;         &lt;xs:complexType&gt;           &lt;xs:sequence&gt;</pre>					

	<pre> &lt;xs:element name="Dimension" maxOccurs="unbounded"&gt;   &lt;xs:complexType&gt;     &lt;xs:attribute name="name"&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:minLength value="1"/&gt;           &lt;xs:maxLength value="255"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:attribute&gt;     &lt;xs:attribute name="value"&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:minLength value="1"/&gt;           &lt;xs:maxLength value="255"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:attribute&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;/xs:sequence&gt; &lt;xs:attribute name="assetName" use="required"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;(See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	---

**attribute Location/PhysicalAsset/@assetName**

type	restriction of <b>xs:string</b>
properties	isRef 0 use required
facets	minLength 1 maxLength 255
annotation	documentation (See Configuration Section in BXF Protocol Documentation)
source	<pre> &lt;xs:attribute name="assetName" use="required"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;(See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt; </pre>

```
<xs:restriction base="xs:string">
  <xs:minLength value="1"/>
  <xs:maxLength value="255"/>
</xs:restriction>
</xs:simpleType>
</xs:attribute>
```

element **Location/PhysicalAsset/MediaReferenceName**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
source	<xs:element name="MediaReferenceName" type="BxfText"/>					

element **Location/PhysicalAsset/PhysicalLocation**

diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
children	<a href="#">Dimension</a>								
source	<pre> &lt;xs:element name="PhysicalLocation" minOccurs="0"&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Dimension" maxOccurs="unbounded"&gt;         &lt;xs:complexType&gt;           &lt;xs:attribute name="name"&gt;             &lt;xs:simpleType&gt;               &lt;xs:restriction base="xs:string"&gt;                 &lt;xs:minLength value="1"/&gt;                 &lt;xs:maxLength value="255"/&gt;               &lt;/xs:restriction&gt;             &lt;/xs:simpleType&gt;           &lt;/xs:attribute&gt;           &lt;xs:attribute name="value"&gt;             &lt;xs:simpleType&gt;               &lt;xs:restriction base="xs:string"&gt;                 &lt;xs:minLength value="1"/&gt;                 &lt;xs:maxLength value="255"/&gt;               &lt;/xs:restriction&gt;             &lt;/xs:simpleType&gt;           &lt;/xs:attribute&gt;         &lt;/xs:complexType&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>								

element **Location/PhysicalAsset/PhysicalLocation/Dimension**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF

properties	isRef 0 minOcc 1 maxOcc unbounded content complex
attributes	<div> <div>Name</div> <div>Type</div> <div>Use</div> <div>Default</div> <div>Fixed</div> <div>annotation</div> </div> <div> <a href="#">name</a>  <a href="#">value</a> </div> <div> derived by:  xs:string  derived by:  xs:string </div>
source	<pre> &lt;xs:element name="Dimension" maxOccurs="unbounded"&gt;   &lt;xs:complexType&gt;     &lt;xs:attribute name="name"&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:minLength value="1"/&gt;           &lt;xs:maxLength value="255"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:attribute&gt;     &lt;xs:attribute name="value"&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:minLength value="1"/&gt;           &lt;xs:maxLength value="255"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:attribute&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

#### attribute Location/PhysicalAsset/PhysicalLocation/Dimension/@name

type	restriction of <b>xs:string</b>
properties	isRef 0
facets	minLength 1 maxLength 255
source	<pre> &lt;xs:attribute name="name"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

#### attribute Location/PhysicalAsset/PhysicalLocation/Dimension/@value

type	restriction of <b>xs:string</b>
properties	isRef 0

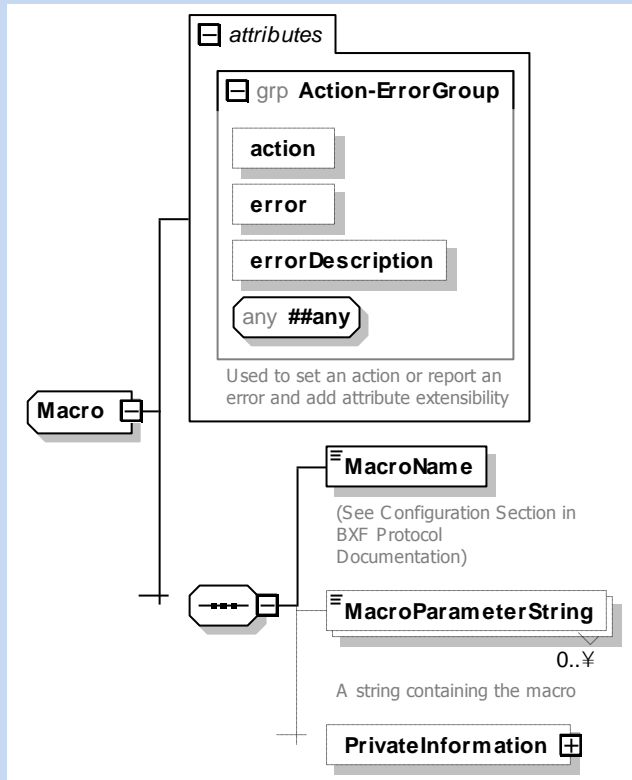
facets	<div>minLength1</div> <div>maxLength255</div>
source	<pre>&lt;xs:attribute name="value"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt;</pre>

element **Location/PrivateInformation**

diagram	<p>The diagram shows an element named 'PrivateInformation' with a facet named 'BxfPrivateInformation'. The facet is represented by a yellow box containing a diagram of a 'any' type with a cardinality of '0..∞'.</p>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	<div>isRef0</div> <div>minOcc0</div> <div>maxOcc1</div> <div>contentcomplex</div>
source	<pre>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</pre>

## complexType Macro

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [MacroName](#) [MacroParameterString](#) [PrivateInformation](#)

used by elements [EventData/MacroEvent](#) [NonPrimaryEvent/Macros](#) [Format/FormatStructure/FormatElements/NonPrimaryElements/Macros](#) [BaseMedia/ProfileMacro](#)

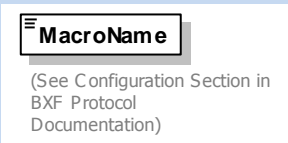
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			

source

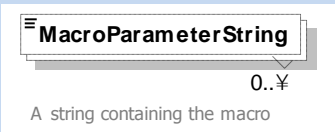
```
<xs:complexType name="Macro">
  <xs:sequence>
    <xs:element name="MacroName" type="xs:string">
      <xs:annotation>
        <xs:documentation>(See Configuration Section in BXF Protocol Documentation)</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="MacroParameterString" type="xs:string" minOccurs="0" maxOccurs="unbounded">
      <xs:annotation>
        <xs:documentation>A string containing the macro</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

	<pre> &lt;/xs:element&gt; &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	---

#### element **Macro/MacroName**

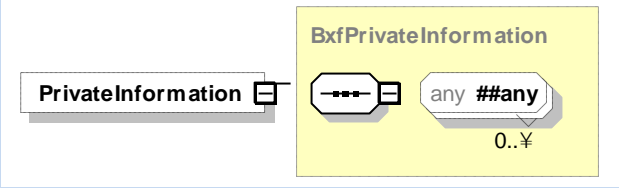
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation (See Configuration Section in BXF Protocol Documentation)
source	<pre> &lt;xs:element name="MacroName" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;(See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element **Macro/MacroParameterString**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc unbounded content simple
annotation	documentation A string containing the macro
source	<pre> &lt;xs:element name="MacroParameterString" type="xs:string" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A string containing the macro&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

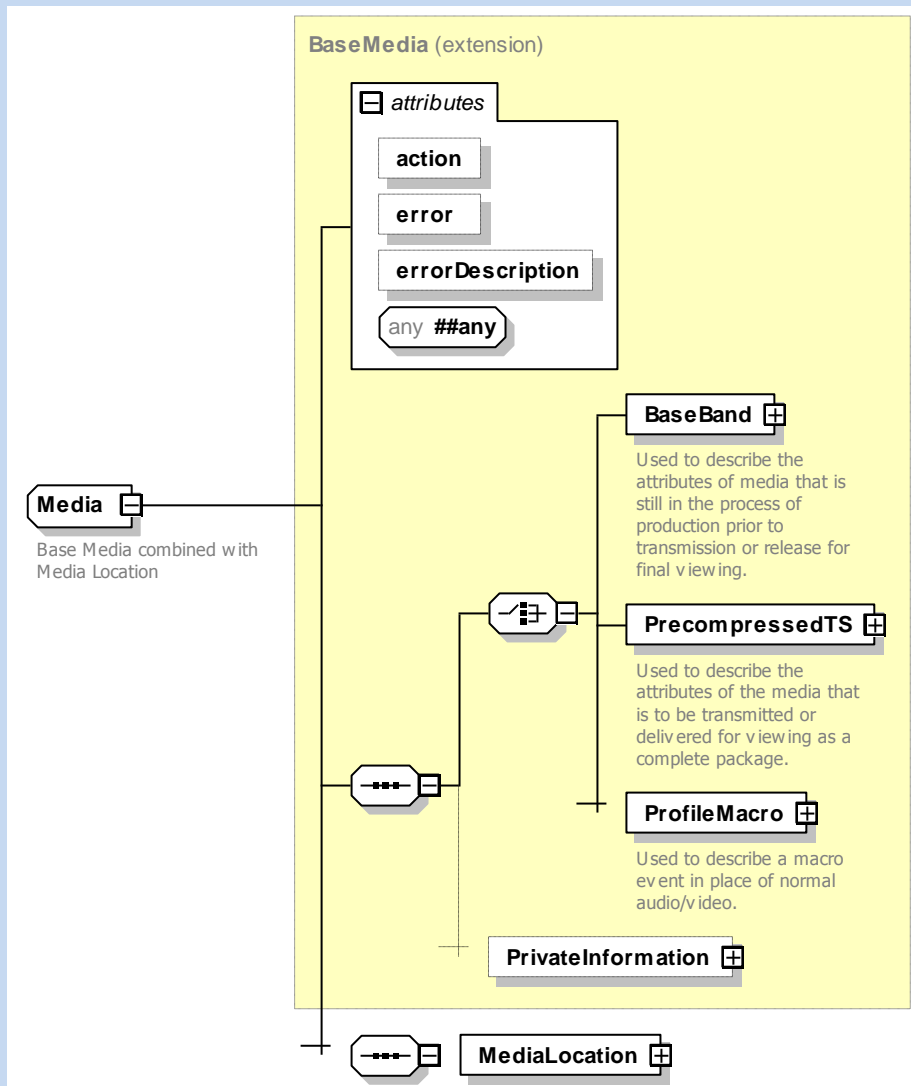


element **Macro/PrivateInformation**

diagram			
namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">BxfPrivateInformation</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	complex	
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>		

# complexType Media

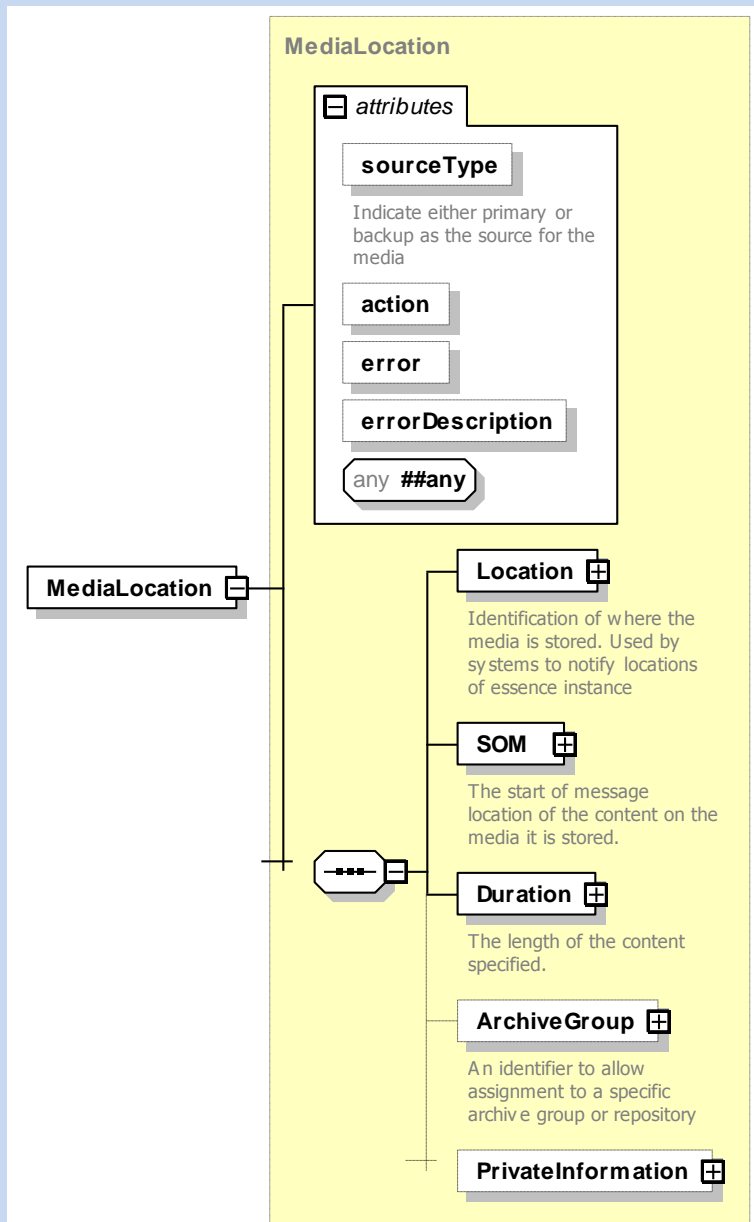
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	extension of <a href="#">BaseMedia</a>
properties	base BaseMedia
children	<a href="#">BaseBand</a> <a href="#">PrecompressedTS</a> <a href="#">ProfileMacro</a> <a href="#">PrivateInformation</a> <a href="#">MediaLocation</a>
used by	elements <a href="#">ContentMetaData/Media</a> <a href="#">ContentTransfer/Source/Media</a> <a href="#">ContentTransfer/Destination/Media</a>

attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Base Media combined with Media Location					
source	<pre> &lt;xs:complexType name="Media"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Base Media combined with Media Location&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexContent&gt;     &lt;xs:extension base="BaseMedia"&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="MediaLocation" type="MediaLocation"/&gt;       &lt;/xs:sequence&gt;     &lt;/xs:extension&gt;   &lt;/xs:complexContent&gt; &lt;/xs:complexType&gt; </pre>					

diagram



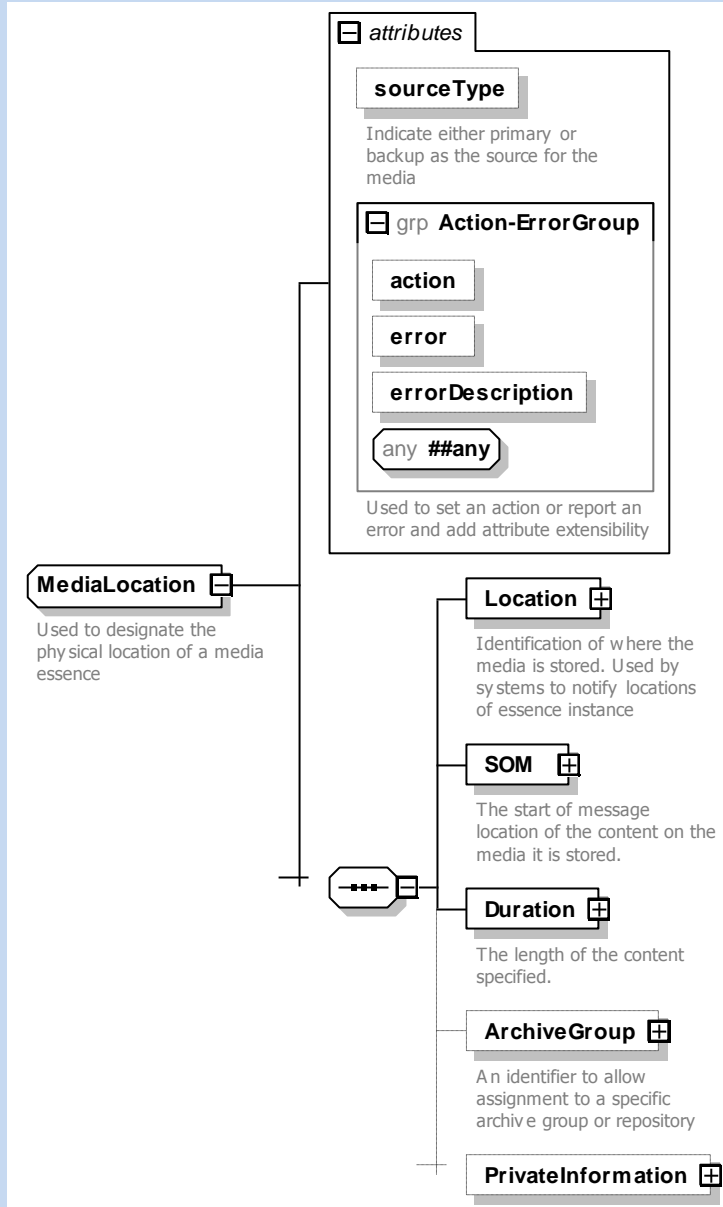
namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

type	<a href="#">MediaLocation</a>					
properties	isRef	0				
	content	complex				
children	<a href="#">Location</a> <a href="#">SOM</a> <a href="#">Duration</a> <a href="#">ArchiveGroup</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">sourceType</a>	Type <b>derived by:</b> <b>xs:string</b> <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use  optional optional optional	Default Primary	Fixed	annotation documentation Indicate either primary or backup as the source for the media
source	<xs:element name="MediaLocation" type="MediaLocation"/>					

# complexType MediaLocation

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [Location](#) [SOM](#) [Duration](#) [ArchiveGroup](#) [PrivateInformation](#)

used by	element <a href="#">Media/MediaLocation</a>					
attributes	Name <a href="#">sourceType</a>  <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <b>derived by:</b> <b>xs:string</b> <b>pmcp:actionType</b> <b>BxfError</b> <b>xs:string</b>	Use  optional optional optional	Default Primary	Fixed	annotation documentation Indicate either primary or backup as the source for the media
annotation	documentation Used to designate the physical location of a media essence					
source	<pre> &lt;xs:complexType name="MediaLocation"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to designate the physical location of a media essence&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Location" type="Location"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Identification of where the media is stored. Used by systems to notify locations of essence instance&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="SOM" type="BxfSmpteTime"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The start of message location of the content on the media it is stored.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Duration" type="BxfDuration"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The length of the content specified.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ArchiveGroup" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;An identifier to allow assignment to a specific archive group or repository&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence&gt;           &lt;xs:element name="ArchiveName" type="BxfText"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Name of the archive&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="PhysicalLocation" minOccurs="0"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Location of the archive&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;             &lt;xs:complexType&gt;               &lt;xs:sequence&gt;                 &lt;xs:element name="Dimension" maxOccurs="unbounded"/&gt;               &lt;/xs:sequence&gt;             &lt;/xs:complexType&gt;           &lt;/xs:element&gt;         &lt;/xs:sequence&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>					

	<pre> &lt;/xs:sequence&gt; &lt;xs:attribute name="sourceType" default="Primary"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicate either primary or backup as the source for the media&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Primary"/&gt;       &lt;xs:enumeration value="Backup"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	---

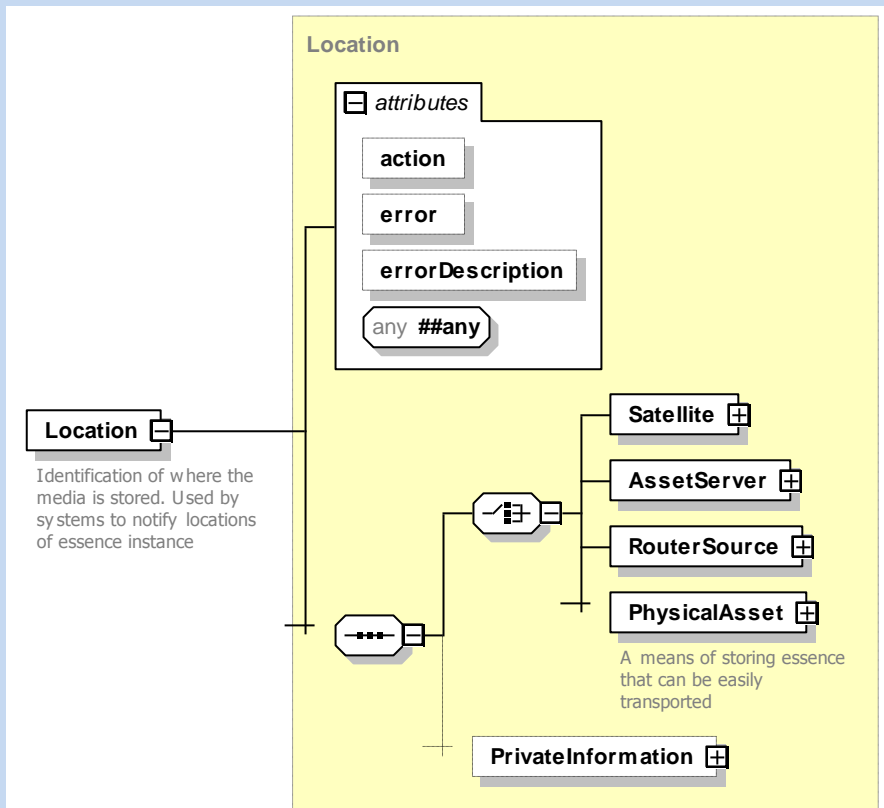
attribute **MediaLocation/@sourceType**

type	restriction of <b>xs:string</b>
properties	<div>isRef0</div> <div>defaultPrimary</div>
facets	<div>enumerationPrimary</div> <div>enumerationBackup</div>
annotation	<div>documentation</div> <div>Indicate either primary or backup as the source for the media</div>
source	<pre> &lt;xs:attribute name="sourceType" default="Primary"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicate either primary or backup as the source for the media&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Primary"/&gt;       &lt;xs:enumeration value="Backup"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>



# element **MediaLocation/Location**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [Location](#)

properties isRef 0  
content complex

children [Satellite](#) [AssetServer](#) [RouterSource](#) [PhysicalAsset](#) [PrivateInformation](#)

attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			

annotation documentation  
Identification of where the media is stored. Used by systems to notify locations of essence instance

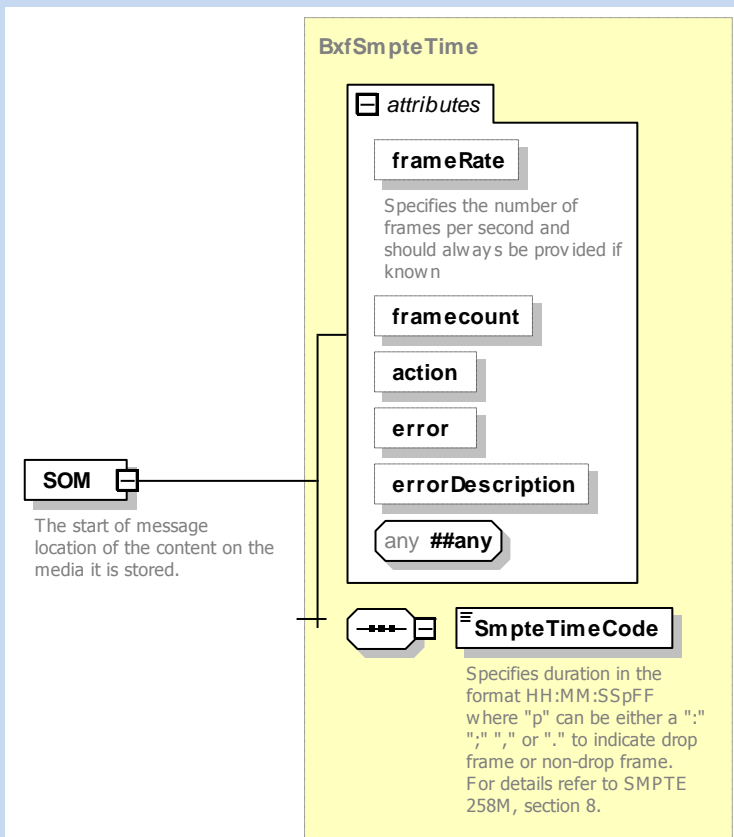
source

```

<xs:element name="Location" type="Location">
  <xs:annotation>
    <xs:documentation>Identification of where the media is stored. Used by systems to notify locations of essence instance</xs:documentation>
  </xs:annotation>
</xs:element>
  
```

# element **MediaLocation/SOM**

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfSmpteTime</a>					
properties	isRef	0				
	content	complex				
children	<a href="#">SmpteTimeCode</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">frameRate</a>	xs:decimal				documentation
						Specifies the number of frames per second and should always be provided if known
	<a href="#">framecount</a>	xs:integer				
	<a href="#">action</a>	pmcp:actionType	optional			
	<a href="#">error</a>	BxfError	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
annotation	documentation The start of message location of the content on the media it is stored.					

source	<pre> &lt;xs:element name="SOM" type="BxfSmpteTime"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The start of message location of the content on the media it is stored.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>
--------	--

## element **MediaLocation/Duration**

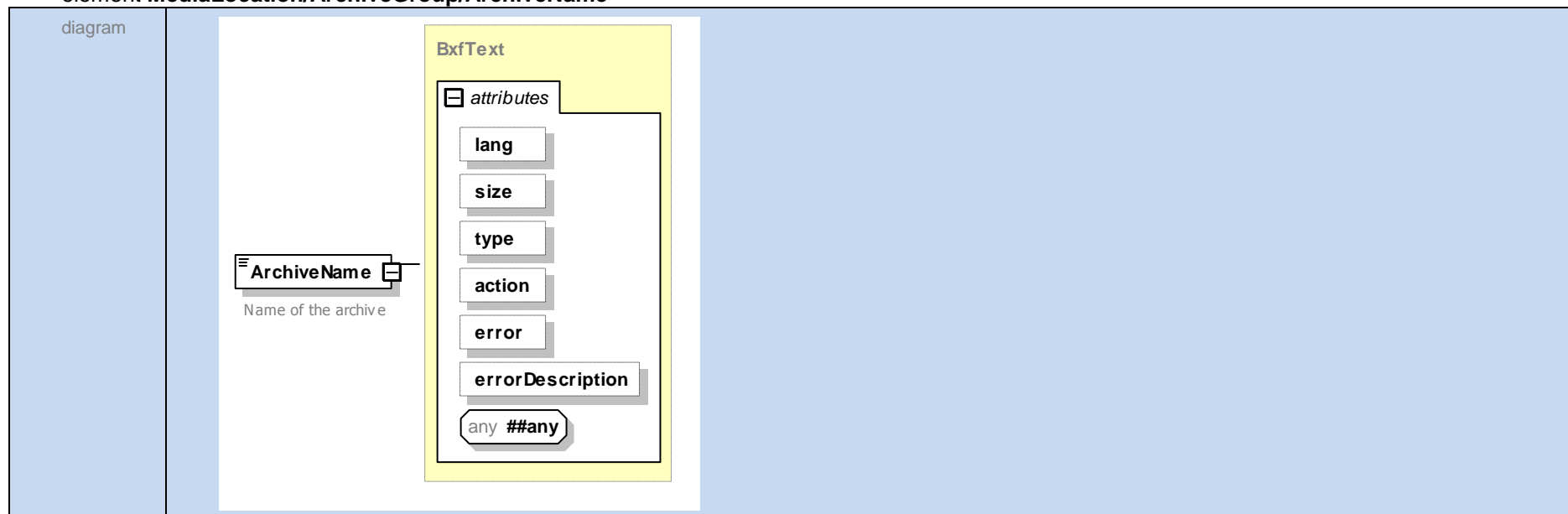
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfDuration</a>
properties	isRef 0 content complex
children	<a href="#">SmpteDuration</a> <a href="#">UtcDuration</a>
annotation	documentation The length of the content specified.
source	<pre> &lt;xs:element name="Duration" type="BxfDuration"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The length of the content specified.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## element **MediaLocation/ArchiveGroup**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">ArchiveName</a> <a href="#">PhysicalLocation</a>

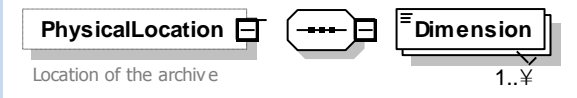
annotation	documentation An identifier to allow assignment to a specific archive group or repository
source	<pre> &lt;xs:element name="ArchiveGroup" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;An identifier to allow assignment to a specific archive group or repository&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="ArchiveName" type="BxfText"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Name of the archive&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="PhysicalLocation" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Location of the archive&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence&gt;           &lt;xs:element name="Dimension" maxOccurs="unbounded"/&gt;         &lt;/xs:sequence&gt;       &lt;/xs:complexType&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

#### element **MediaLocation/ArchiveGroup/ArchiveName**

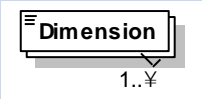


namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
annotation	documentation Name of the archive					
source	<pre>&lt;xs:element name="ArchiveName" type="BxfText"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of the archive&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

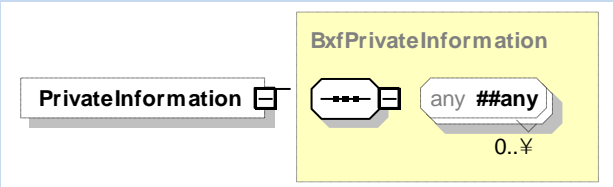
#### element **MediaLocation/ArchiveGroup/PhysicalLocation**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">Dimension</a>
annotation	documentation Location of the archive
source	<pre>&lt;xs:element name="PhysicalLocation" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Location of the archive&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Dimension" maxOccurs="unbounded"/&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>

element **MediaLocation/ArchiveGroup/PhysicalLocation/Dimension**

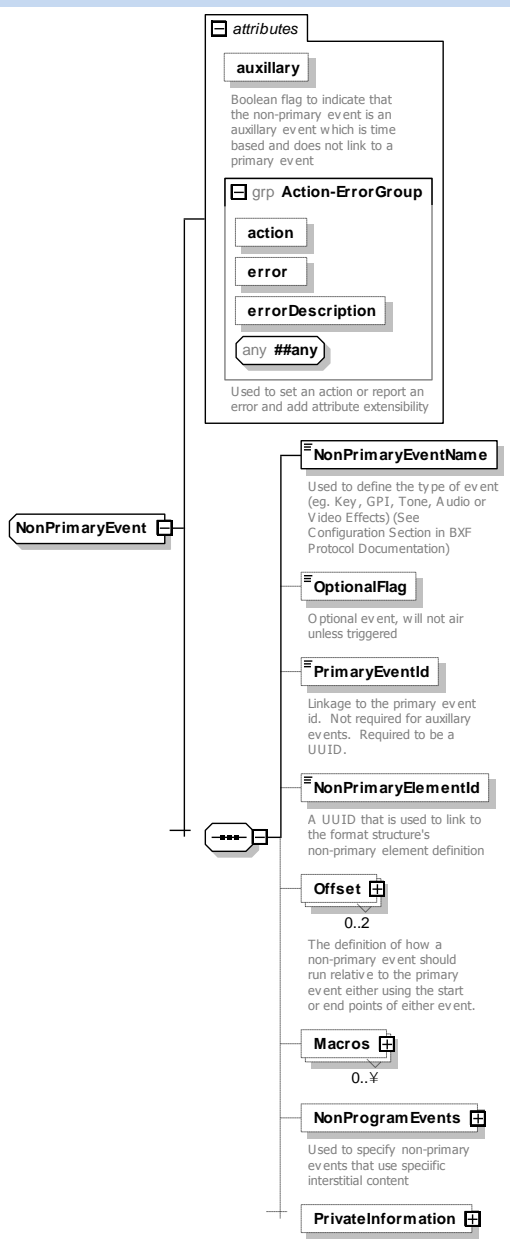
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	<div>isRef 0</div> <div>minOcc 1</div> <div>maxOcc unbounded</div>
source	<code>&lt;xs:element name="Dimension" maxOccurs="unbounded"/&gt;</code>

element **MediaLocation/PrivateInformation**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	<div>isRef 0</div> <div>minOcc 0</div> <div>maxOcc 1</div> <div>content complex</div>
source	<code>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</code>

# complexType NonPrimaryEvent

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

children	<a href="#">NonPrimaryEventName</a> <a href="#">OptionalFlag</a> <a href="#">PrimaryEventId</a> <a href="#">NonPrimaryElementId</a> <a href="#">Offset</a> <a href="#">Macros</a> <a href="#">NonProgramEvents</a> <a href="#">PrivateInformation</a>					
used by	element	<a href="#">EventData/NonPrimaryEvent</a>				
attributes	Name <a href="#">auxillary</a>	Type <b>xs:boolean</b>	Use 	Default false	Fixed 	annotation documentation Boolean flag to indicate that the non-primary event is an auxillary event which is time based and does not link to a primary event
	<a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	<a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	optional optional optional			
source	<pre> &lt;xs:complexType name="NonPrimaryEvent"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="NonPrimaryEventName" type="xs:string"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Used to define the type of event (eg. Key, GPI, Tone, Audio or Video Effects) (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="OptionalFlag" type="xs:boolean" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Optional event, will not air unless triggered&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrimaryEventId" type="Uuid" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Linkage to the primary event id. Not required for auxillary events. Required to be a UUID.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="NonPrimaryElementId" type="Uuid" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A UUID that is used to link to the format structure's non-primary element definition&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Offset" minOccurs="0" maxOccurs="2"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The definition of how a non-primary event should run relative to the primary event either using the start or end points of either event.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:complexType&gt;       &lt;xs:sequence&gt;         &lt;xs:element name="OffsetTime" type="BxfSmpteTime" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;The time to start the event relative to the start time of the primary event&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;       &lt;/xs:sequence&gt;       &lt;xs:attribute name="offsetFrom"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Defines the point of the primary event from which the offset is applied either start or end&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:attribute&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:enumeration value="BeginningofEvent"/&gt;           &lt;xs:enumeration value="EndofEvent"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:complexType&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>					



```

</xs:restriction>
</xs:simpleType>
</xs:attribute>
<xs:attribute name="offsetType">
  <xs:annotation>
    <xs:documentation>This describes whether the start or end point of the non-primary event should be used when the offset is applied</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:enumeration value="Start"/>
      <xs:enumeration value="End"/>
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
<xs:attribute name="direction">
  <xs:annotation>
    <xs:documentation>Defines whether the offset value is applied as a positive or negative value</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:enumeration value="Positive"/>
      <xs:enumeration value="Negative"/>
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
</xs:complexType>
</xs:element>
<xs:element name="Macros" type="Macro" minOccurs="0" maxOccurs="unbounded"/>
<xs:element name="NonProgramEvents" type="NonProgramEvent" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Used to specify non-primary events that use speciific interstitial content</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
</xs:sequence>
<xs:attribute name="auxillary" type="xs:boolean" default="false">
  <xs:annotation>
    <xs:documentation>Boolean flag to indicate that the non-primary event is an auxillary event which is time based and does not link to a primary event</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>

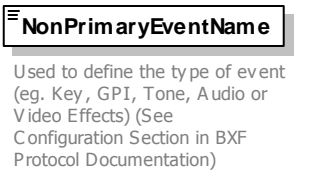
```

#### attribute NonPrimaryEvent/@auxillary


type	xs:boolean
properties	isRef 0 default false
annotation	documentation Boolean flag to indicate that the non-primary event is an auxillary event which is time based and does not link to a primary event
source	<xs:attribute name="auxillary" type="xs:boolean" default="false"> </xs:attribute>

	<pre> &lt;xs:documentation&gt;Boolean flag to indicate that the non-primary event is an auxillary event which is time based and does not link to a primary event&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>
--	---

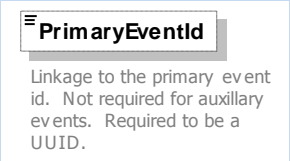
#### element **NonPrimaryEvent/NonPrimaryEventName**

diagram	 <pre> NonPrimaryEventName Used to define the type of event (eg. Key, GPI, Tone, Audio or Video Effects) (See Configuration Section in BXF Protocol Documentation) </pre>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:string</b>
properties	isRef 0 content simple
annotation	documentation Used to define the type of event (eg. Key, GPI, Tone, Audio or Video Effects) (See Configuration Section in BXF Protocol Documentation)
source	<pre> &lt;xs:element name="NonPrimaryEventName" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to define the type of event (eg. Key, GPI, Tone, Audio or Video Effects) (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

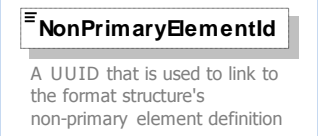
#### element **NonPrimaryEvent/OptionalFlag**

diagram	 <pre> OptionalFlag Optional event, will not air unless triggered </pre>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:boolean</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Optional event, will not air unless triggered
source	<pre> &lt;xs:element name="OptionalFlag" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Optional event, will not air unless triggered&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

## element **NonPrimaryEvent/PrimaryEventId**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">Uuid</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}
annotation	documentation Linkage to the primary event id. Not required for auxillary events. Required to be a UUID.
source	<pre>&lt;xs:element name="PrimaryEventId" type="Uuid" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Linkage to the primary event id. Not required for auxillary events. Required to be a UUID.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

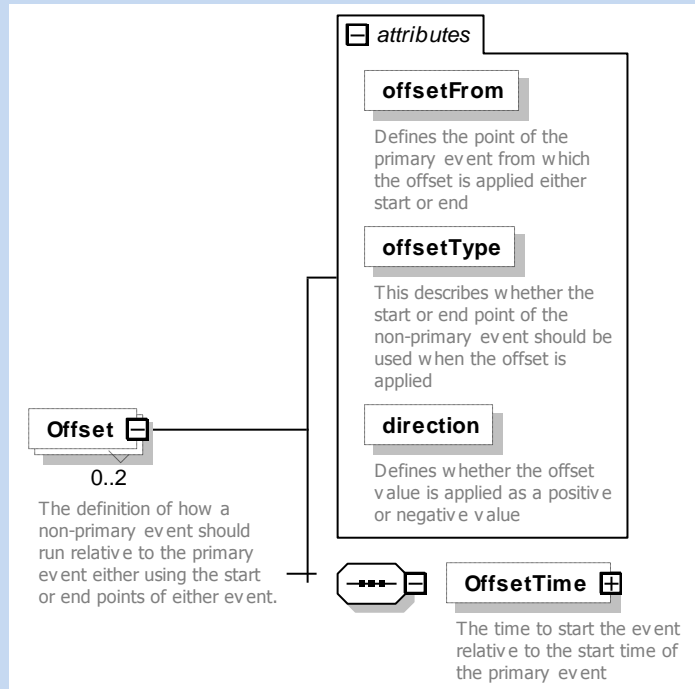
## element **NonPrimaryEvent/NonPrimaryElementId**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">Uuid</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}
annotation	documentation A UUID that is used to link to the format structure's non-primary element definition
source	<pre>&lt;xs:element name="NonPrimaryElementId" type="Uuid" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A UUID that is used to link to the format structure's non-primary element definition&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

</xs:element>

## element **NonPrimaryEvent/Offset**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

properties

isRef	0
minOcc	0
maxOcc	2
content	complex

children [OffsetTime](#)

attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">offsetFrom</a>	derived by: xs:string				documentation Defines the point of the primary event from which the offset is applied either start or end
	<a href="#">offsetType</a>	derived by: xs:string				documentation This describes whether the start or end point of the non-primary event should be used when the offset is applied
	<a href="#">direction</a>	derived by: xs:string				documentation Defines whether the offset value is applied as a positive or negative value

annotation

documentation  
The definition of how a non-primary event should run relative to the primary event either using the start or end points of either event.

source `<xs:element name="Offset" minOccurs="0" maxOccurs="2">`

```

<xs:annotation>
  <xs:documentation>The definition of how a non-primary event should run relative to the primary event either using the start or end points of either
  event.</xs:documentation>
</xs:annotation>
<xs:complexType>
  <xs:sequence>
    <xs:element name="OffsetTime" type="BxfSmpTime" minOccurs="0">
      <xs:annotation>
        <xs:documentation>The time to start the event relative to the start time of the primary event</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
  <xs:attribute name="offsetFrom">
    <xs:annotation>
      <xs:documentation>Defines the point of the primary event from which the offset is applied either start or end</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="BeginningofEvent"/>
        <xs:enumeration value="EndofEvent"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="offsetType">
    <xs:annotation>
      <xs:documentation>This describes whether the start or end point of the non-primary event should be used when the offset is applied</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="Start"/>
        <xs:enumeration value="End"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="direction">
    <xs:annotation>
      <xs:documentation>Defines whether the offset value is applied as a positive or negative value</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="Positive"/>
        <xs:enumeration value="Negative"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:complexType>
</xs:element>

```

#### attribute **NonPrimaryEvent/Offset/@offsetFrom**

type	restriction of <b>xs:string</b>
properties	isRef 0

facets	enumeration enumeration BeginningofEvent EndofEvent
annotation	documentation Defines the point of the primary event from which the offset is applied either start or end
source	<pre> &lt;xs:attribute name="offsetFrom"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Defines the point of the primary event from which the offset is applied either start or end&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="BeginningofEvent"/&gt;       &lt;xs:enumeration value="EndofEvent"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **NonPrimaryEvent/Offset/@offsetType**

type	restriction of <b>xs:string</b>
properties	isRef 0
facets	enumeration enumeration Start End
annotation	documentation This describes whether the start or end point of the non-primary event should be used when the offset is applied
source	<pre> &lt;xs:attribute name="offsetType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This describes whether the start or end point of the non-primary event should be used when the offset is applied&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Start"/&gt;       &lt;xs:enumeration value="End"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **NonPrimaryEvent/Offset/@direction**

type	restriction of <b>xs:string</b>
properties	isRef 0
facets	enumeration enumeration Positive Negative
annotation	documentation Defines whether the offset value is applied as a positive or negative value
source	<pre> &lt;xs:attribute name="direction"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Defines whether the offset value is applied as a positive or negative value&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt; </pre>

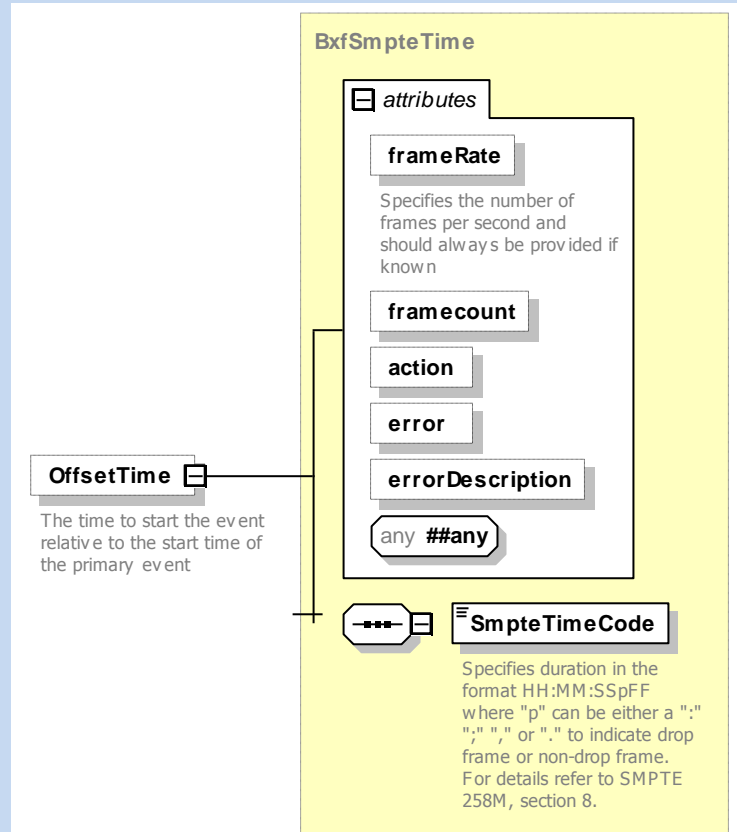
```

<xs:restriction base="xs:string">
  <xs:enumeration value="Positive"/>
  <xs:enumeration value="Negative"/>
</xs:restriction>
</xs:simpleType>
</xs:attribute>

```

## element NonPrimaryEvent/Offset/OffsetTime

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">BxfSmpteTime</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	complex	
children	<a href="#">SmpteTimeCode</a>		

attributes	Name <a href="#">frameRate</a>	Type <b>xs:decimal</b>	Use	Default	Fixed	annotation documentation Specifies the number of frames per second and should always be provided if known
	<a href="#">framecount</a> <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	<b>xs:integer</b> <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	optional optional optional			
annotation	documentation The time to start the event relative to the start time of the primary event					
source	<pre>&lt;xs:element name="OffsetTime" type="BxfSmpteTime" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The time to start the event relative to the start time of the primary event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

element **NonPrimaryEvent/Macros**

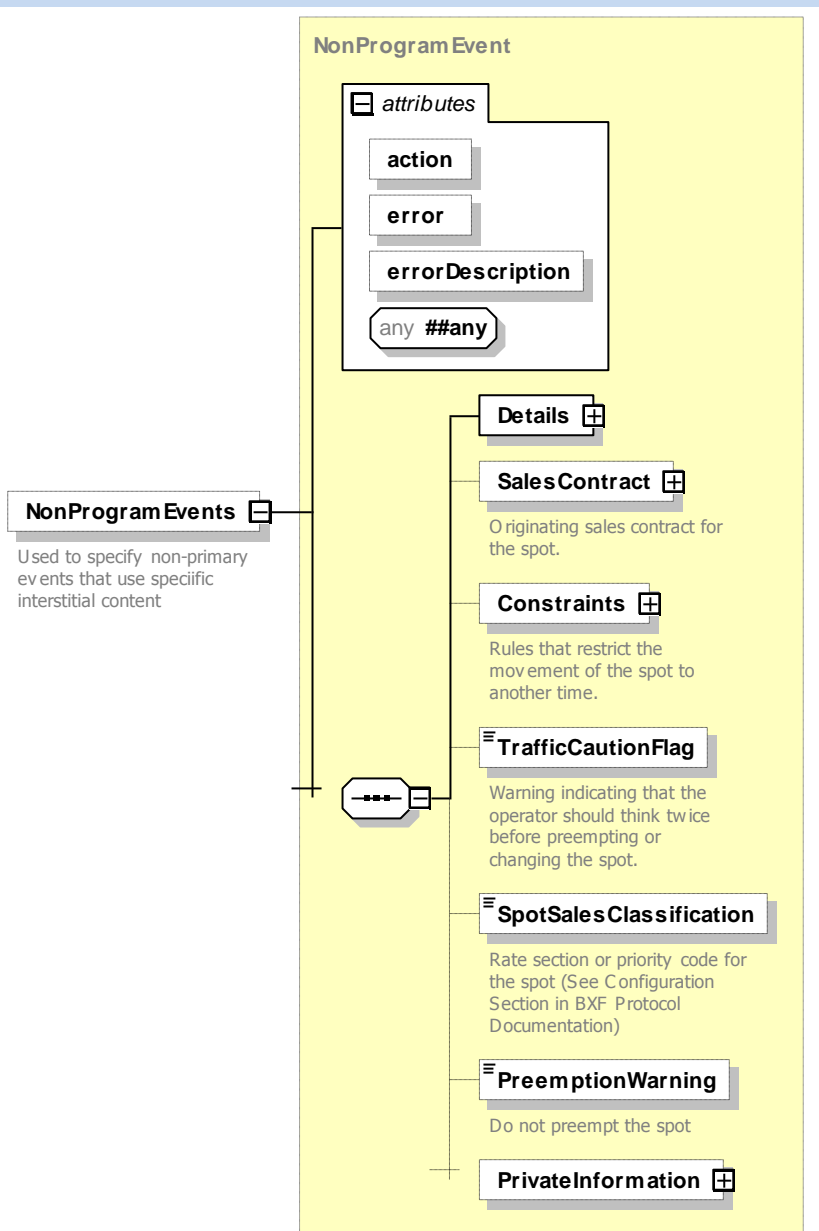
diagram						
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>					
type	<a href="#">Macro</a>					
properties	isRef	0				



	minOcc maxOcc content	0 unbounded complex				
children	<a href="#">MacroName</a> <a href="#">MacroParameterString</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="Macros" type="Macro" minOccurs="0" maxOccurs="unbounded"/>					

# element **NonPrimaryEvent/NonProgramEvents**

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

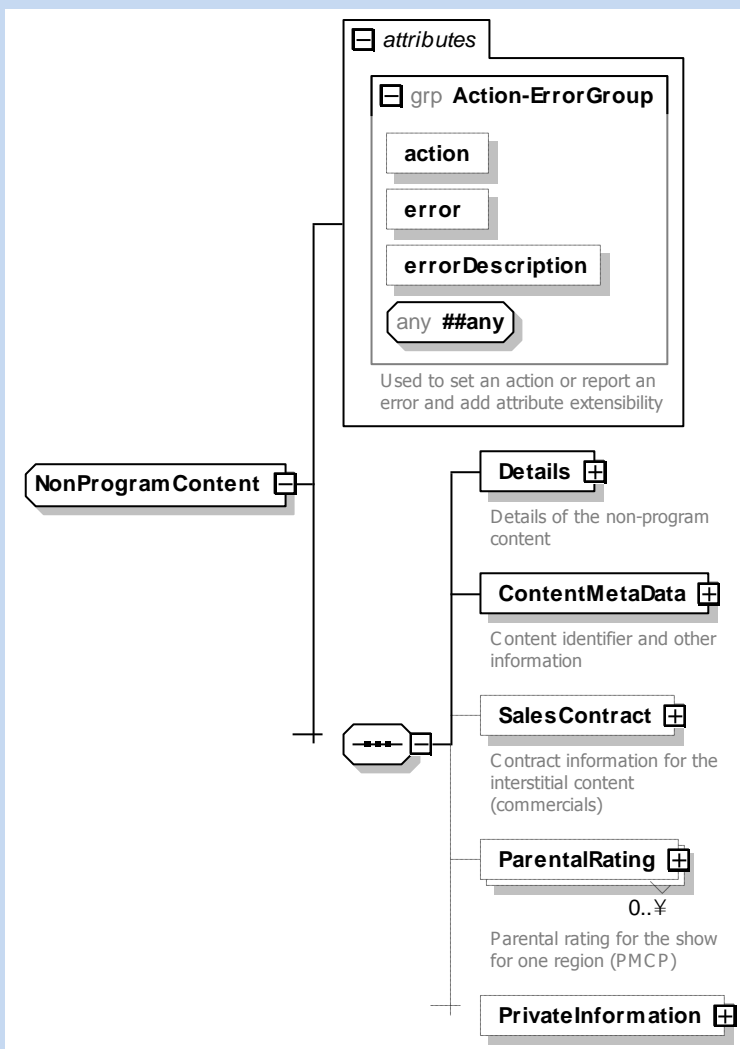
type	<a href="#">NonProgramEvent</a>					
properties	isRef	0	minOcc	0	maxOcc	1
	content	complex				
children	<a href="#">Details</a> <a href="#">SalesContract</a> <a href="#">Constraints</a> <a href="#">TrafficCautionFlag</a> <a href="#">SpotSalesClassification</a> <a href="#">PreemptionWarning</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation Used to specify non-primary events that use speciific interstitial content					
source	<pre>&lt;xs:element name="NonProgramEvents" type="NonProgramEvent" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to specify non-primary events that use speciific interstitial content&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

### element **NonPrimaryEvent/PrivateInformation**

diagram	<p>The diagram illustrates the structure of the <b>PrivateInformation</b> element. It is represented as a rectangle with a small square icon on its right side. To its right is a yellow box labeled <b>BxfPrivateInformation</b>. Inside this box, there is a sequence of elements: a dashed line, a small square icon, and a rounded rectangle labeled <b>any ##any</b>. Below the <b>any ##any</b> box, the cardinality <b>0..¥</b> is indicated.</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">BxfPrivateInformation</a>								
properties	<table><tr><td>isRef</td><td>0</td></tr><tr><td>minOcc</td><td>0</td></tr><tr><td>maxOcc</td><td>1</td></tr><tr><td>content</td><td>complex</td></tr></table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>								

# complexType NonProgramContent

diagram

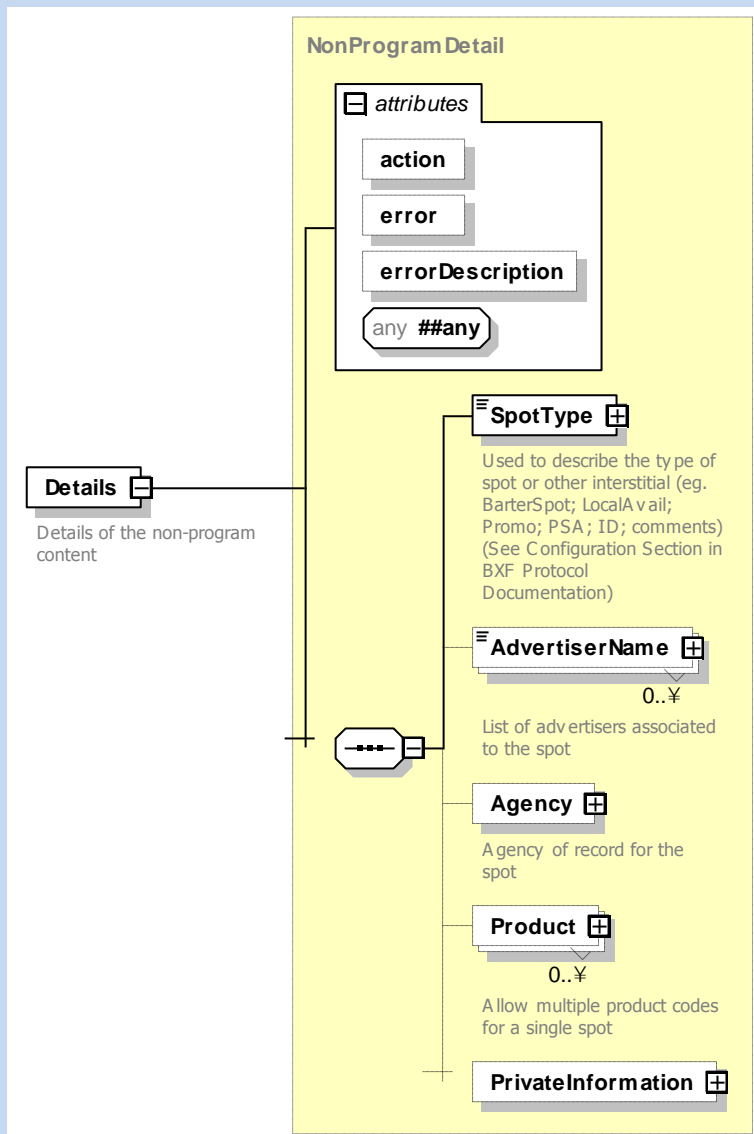


namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
children	<a href="#">Details</a> <a href="#">ContentMetaData</a> <a href="#">SalesContract</a> <a href="#">ParentalRating</a> <a href="#">PrivateInformation</a>					
used by	elements	<a href="#">Element/EmbeddedNonProgramContent</a> <a href="#">Content/NonProgramContent</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcpl:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			

source	<pre> &lt;xs:complexType name="NonProgramContent"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Details" type="NonProgramDetail"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Details of the non-program content&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ContentMetaData" type="ContentMetaData"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Content identifier and other information&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="SalesContract" type="SalesContract" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Contract information for the interstitial content (commercials)&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ParentalRating" type="BxfParentalRating" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Parental rating for the show for one region (PMCP)&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--------	--

# element **NonProgramContent/Details**

diagram

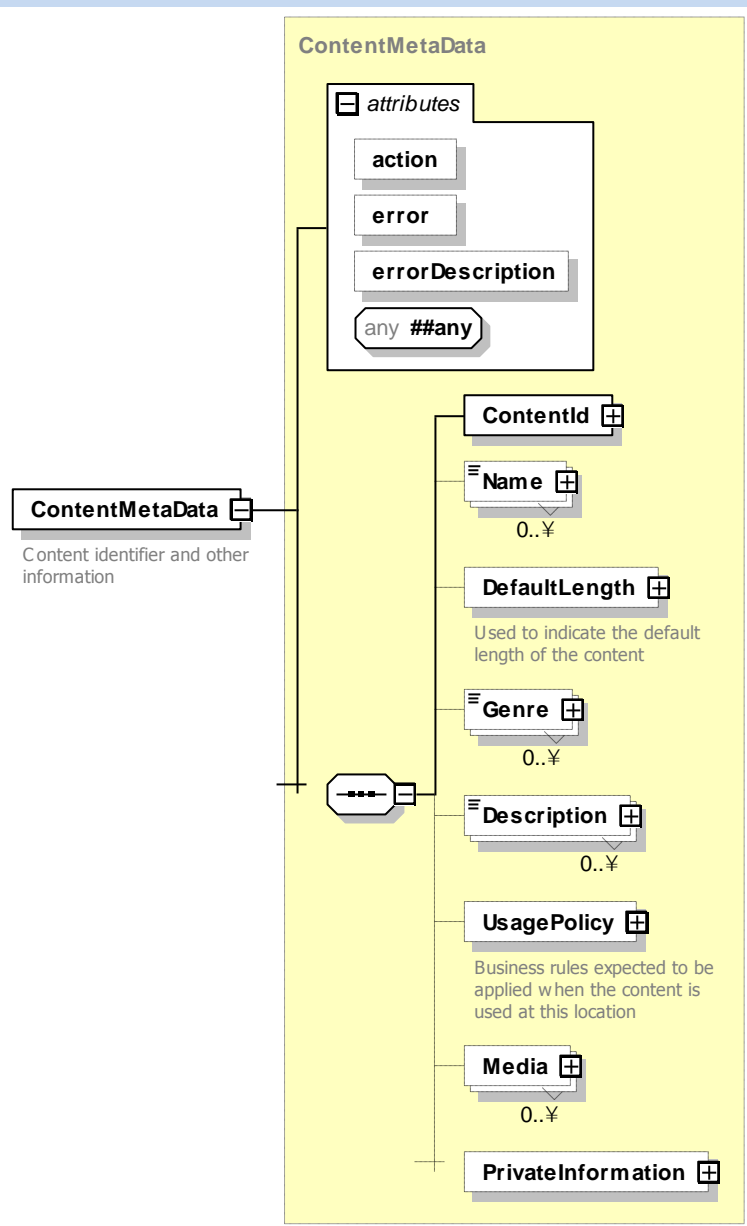


namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">NonProgramDetail</a>		
properties	isRef	0	
	content	complex	

children	<a href="#">SpotType</a> <a href="#">AdvertiserName</a> <a href="#">Agency</a> <a href="#">Product</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Details of the non-program content					
source	<pre> &lt;xs:element name="Details" type="NonProgramDetail"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Details of the non-program content&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

# element **NonProgramContent/ContentMetaData**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

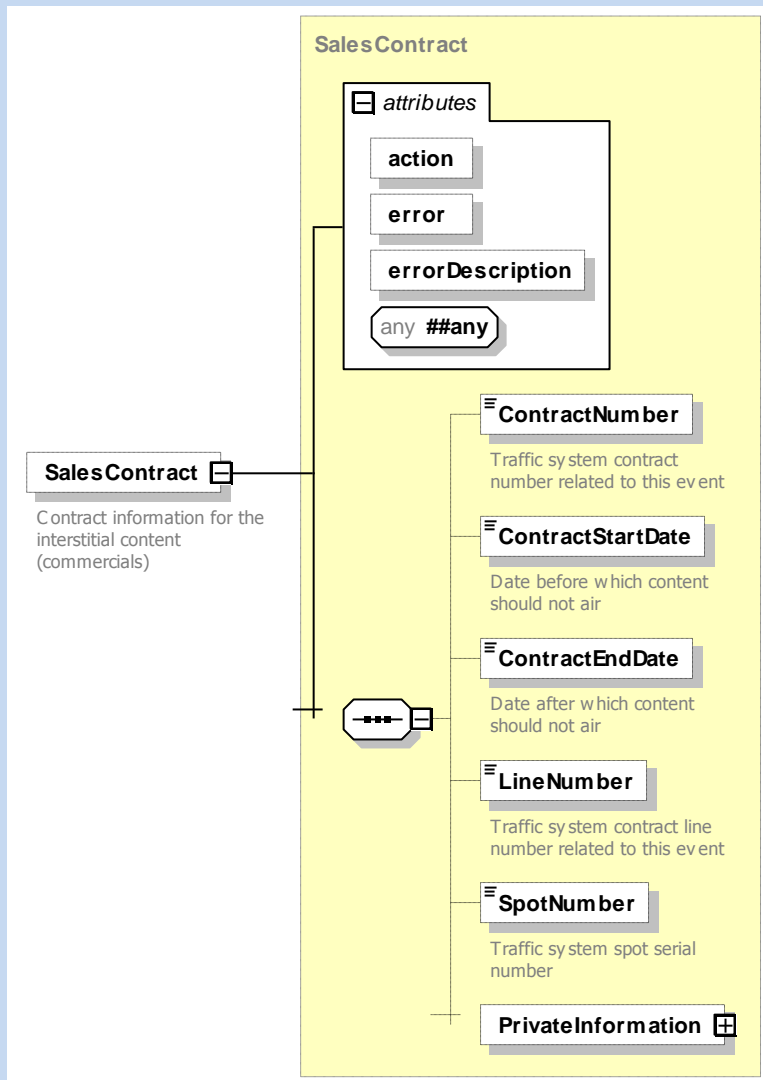
type [ContentMetaData](#)



properties	isRef content	0 complex					
children	<a href="#">ContentId</a> <a href="#">Name</a> <a href="#">DefaultLength</a> <a href="#">Genre</a> <a href="#">Description</a> <a href="#">UsagePolicy</a> <a href="#">Media</a> <a href="#">PrivateInformation</a>						
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation	
annotation	documentation Content identifier and other information						
source	<xs:element name="ContentMetaData" type="ContentMetaData"> <xs:annotation> <xs:documentation>Content identifier and other information</xs:documentation> </xs:annotation> </xs:element>						

element **NonProgramContent/SalesContract**

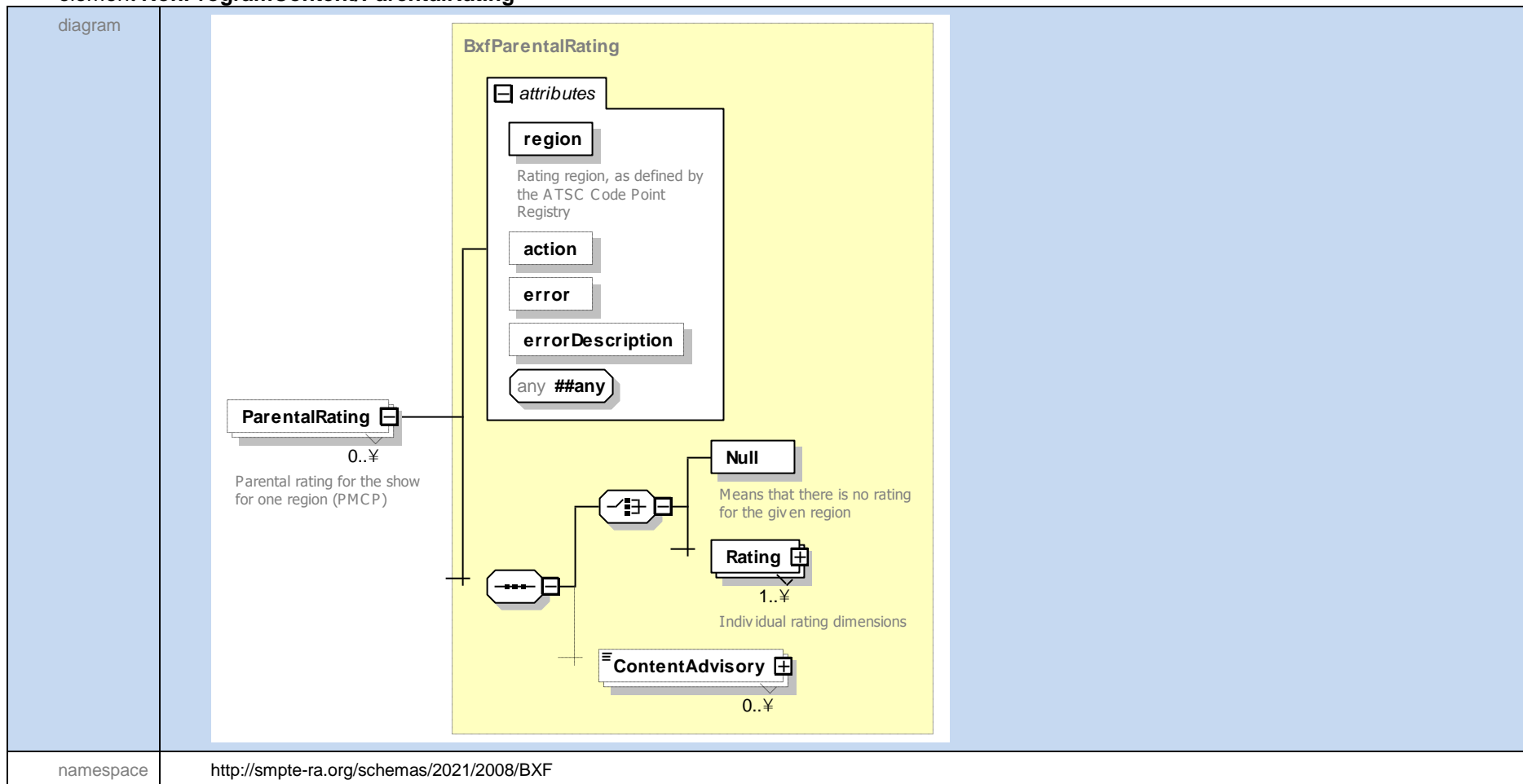
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">SalesContract</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	complex	
children	<a href="#">ContractNumber</a> <a href="#">ContractStartDate</a> <a href="#">ContractEndDate</a> <a href="#">LineNumber</a> <a href="#">SpotNumber</a> <a href="#">PrivateInformation</a>		

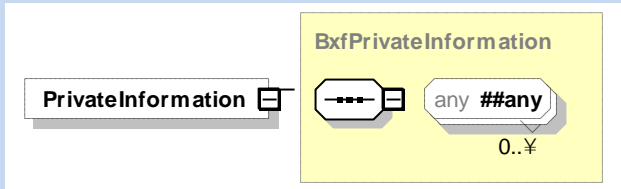
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Contract information for the interstitial content (commercials)					
source	<pre> &lt;xs:element name="SalesContract" type="SalesContract" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Contract information for the interstitial content (commercials)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

### element **NonProgramContent/ParentalRating**



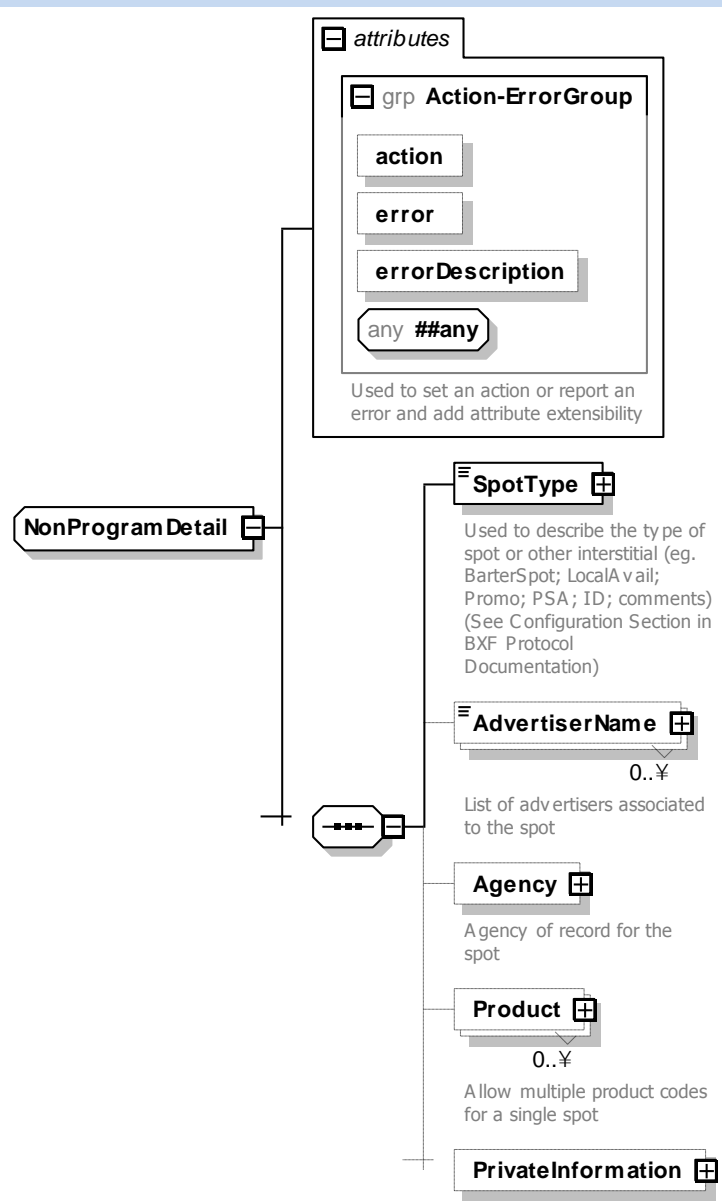
type	<a href="#">BxfParentalRating</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
children	<a href="#">Null Rating ContentAdvisory</a>					
attributes	Name <a href="#">region</a>	Type <b>xs:unsignedByte</b>	Use required	Default	Fixed	annotation documentation Rating region, as defined by the ATSC Code Point Registry
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation Parental rating for the show for one region (PMCP)					
source	<pre>&lt;xs:element name="ParentalRating" type="BxfParentalRating" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Parental rating for the show for one region (PMCP)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

#### element **NonProgramContent/PrivateInformation**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

# complexType NonProgramDetail

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

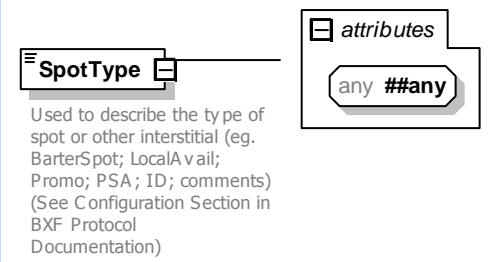
children

[SpotType](#) [AdvertiserName](#) [Agency](#) [Product](#) [PrivateInformation](#)

used by	<a href="#">NonProgramContent/Details</a> <a href="#">NonProgramEvent/Details</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<pre> &lt;xs:complexType name="NonProgramDetail"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="SpotType"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Used to describe the type of spot or other interstitial (eg. BarterSpot; LocalAvail; Promo; PSA; ID; comments) (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:simpleContent&gt;           &lt;xs:extension base="xs:string"&gt;             &lt;xs:anyAttribute namespace="##any"/&gt;           &lt;/xs:extension&gt;         &lt;/xs:simpleContent&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="AdvertiserName" type="BxfText" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;List of advertisers associated to the spot&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Agency" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Agency of record for the spot&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence&gt;           &lt;xs:element name="AgencyName" type="BxfText"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Name of advertising agency (buying agency)&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="EstimateNumber" type="xs:string" minOccurs="0"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Refers to the contract identifier in the agency system&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="AgencyCode" type="xs:string" minOccurs="0"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Recommended to use TVB EDI Value or see Configuration Section in BXF Protocol Documentation&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;         &lt;/xs:sequence&gt;         &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Product" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Allow multiple product codes for a single spot&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt; </pre>					

	<pre>&lt;/xs:annotation&gt; &lt;xs:complexType&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Name" type="BxfText"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Product name for commercial spot content&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ProductCode" type="xs:string" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Recommend use of TVB EDI Value that indicates the category of product (eg "Alcoholic Beverages") or see Configuration Section in BXF Protocol Documentation&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt;</pre>
--	--

element **NonProgramDetail/SpotType**

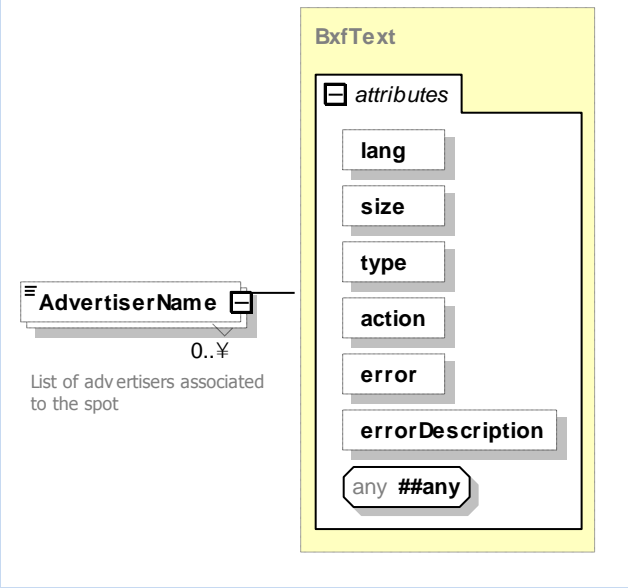
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	extension of <b>xs:string</b>
properties	isRef 0 content complex
attributes	Name Type Use Default Fixed annotation
annotation	documentation Used to describe the type of spot or other interstitial (eg. BarterSpot; LocalAvail; Promo; PSA; ID; comments) (See Configuration Section in BXF Protocol Documentation)
source	<pre>&lt;xs:element name="SpotType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to describe the type of spot or other interstitial (eg. BarterSpot; LocalAvail; Promo; PSA; ID; comments) (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:complexType&gt;</pre>

```

<xs:simpleContent>
  <xs:extension base="xs:string">
    <xs:anyAttribute namespace="##any"/>
  </xs:extension>
</xs:simpleContent>
</xs:complexType>
</xs:element>

```

#### element **NonProgramDetail/AdvertiserName**

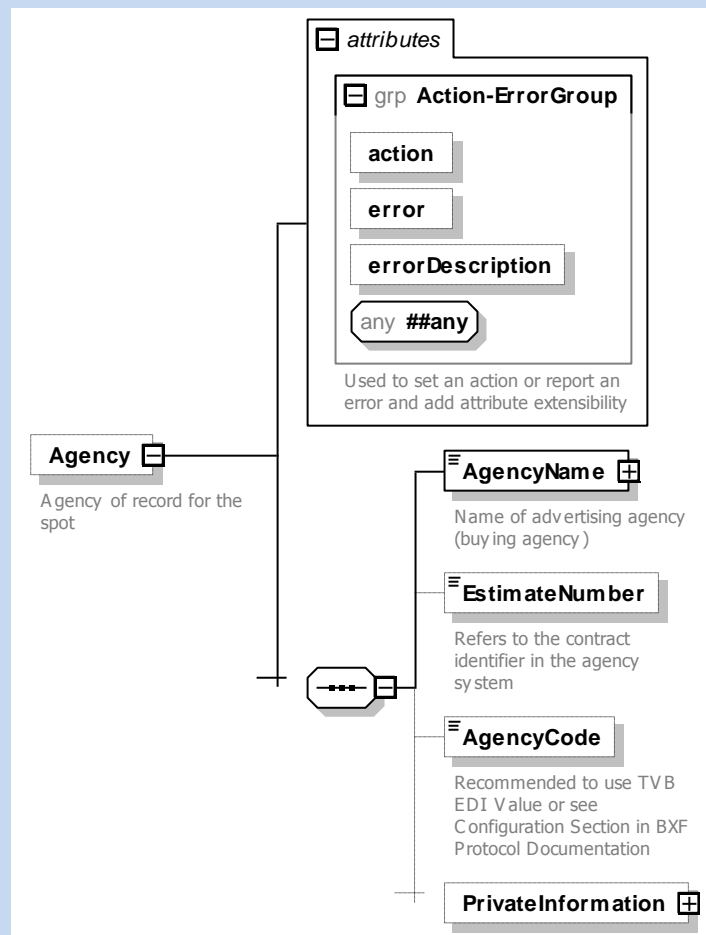
diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
annotation	documentation List of advertisers associated to the spot					
source	<pre> &lt;xs:element name="AdvertiserName" type="BxfText" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt; </pre>					



<xs:documentation>List of advertisers associated to the spot</xs:documentation>  
 </xs:annotation>  
 </xs:element>

## element NonProgramDetail/Agency

diagram



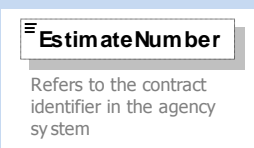
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
children	<a href="#">AgencyName</a> <a href="#">EstimateNumber</a> <a href="#">AgencyCode</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			

	<a href="#">error</a> <a href="#">errorDescription</a> documentation Agency of record for the spot	<a href="#">BxfError</a> <b>xs:string</b>	optional optional
annotation			
source	<pre> &lt;xs:element name="Agency" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Agency of record for the spot&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="AgencyName" type="BxfText"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Name of advertising agency (buying agency)&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="EstimateNumber" type="xs:string" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Refers to the contract identifier in the agency system&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="AgencyCode" type="xs:string" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Recommended to use TVB EDI Value or see Configuration Section in BXF Protocol Documentation&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;     &lt;/xs:sequence&gt;     &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>		

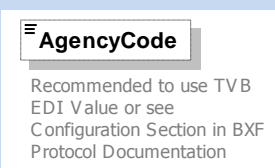
# element **NonProgramDetail/Agency/AgencyName**

diagram	<p>The diagram shows the <b>AgencyName</b> element as a complex type. It has a list of attributes: <b>lang</b>, <b>size</b>, <b>type</b>, <b>action</b>, <b>error</b>, <b>errorDescription</b>, and <b>any ##any</b>. The element is described as 'Name of advertising agency (buying agency)'.</p>					
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<b>xs:positiveInteger</b>				
	<a href="#">type</a>	<b>xs:string</b>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation Name of advertising agency (buying agency)					
source	<pre>&lt;xs:element name="AgencyName" type="BxfText"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Name of advertising agency (buying agency)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

## element NonProgramDetail/Agency/EstimateNumber

diagram	 <p><b>EstimateNumber</b></p> <p>Refers to the contract identifier in the agency system</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:string</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	<p>documentation</p> <p>Refers to the contract identifier in the agency system</p>								
source	<pre>&lt;xs:element name="EstimateNumber" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Refers to the contract identifier in the agency system&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

## element NonProgramDetail/Agency/AgencyCode

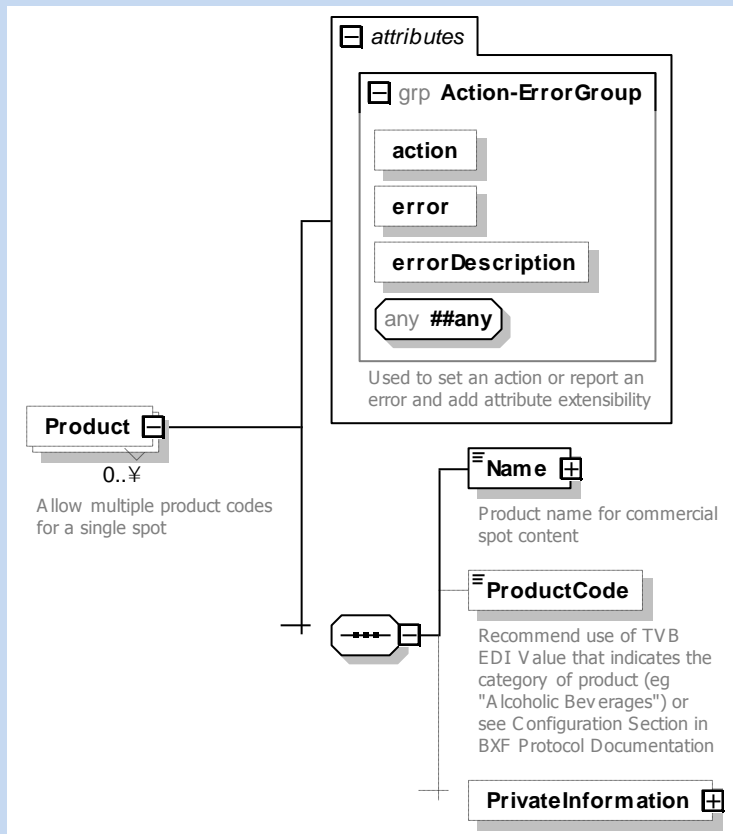
diagram	 <p><b>AgencyCode</b></p> <p>Recommended to use TVB EDI Value or see Configuration Section in BXF Protocol Documentation</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:string</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	<p>documentation</p> <p>Recommended to use TVB EDI Value or see Configuration Section in BXF Protocol Documentation</p>								
source	<pre>&lt;xs:element name="AgencyCode" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Recommended to use TVB EDI Value or see Configuration Section in BXF Protocol Documentation&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

element **NonProgramDetail/Agency/PrivateInformation**

diagram	<p>The diagram shows a rectangular box labeled 'PrivateInformation' with a small square icon to its right. A line connects this box to a yellow rectangular box labeled 'BxfPrivateInformation'. Inside the yellow box, there is a hexagonal constraint box containing the text 'any ##any' and '0..¥' below it.</p>		
namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">BxfPrivateInformation</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	complex	
source	<code>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</code>		

# element **NonProgramDetail/Product**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

properties  
isRef 0  
minOcc 0  
maxOcc unbounded  
content complex

children [Name](#) [ProductCode](#) [PrivateInformation](#)

attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			

annotation  
documentation  
Allow multiple product codes for a single spot

source

```
<xs:element name="Product" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Allow multiple product codes for a single spot</xs:documentation>
  </xs:annotation>
  <xs:complexType>
```

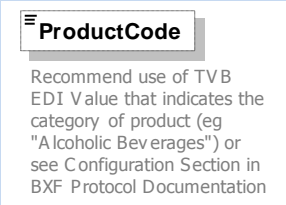
	<pre>&lt;xs:sequence&gt;   &lt;xs:element name="Name" type="BxfText"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Product name for commercial spot content&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:element&gt;   &lt;xs:element name="ProductCode" type="xs:string" minOccurs="0"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Recommend use of TVB EDI Value that indicates the category of product (eg "Alcoholic Beverages") or see Configuration Section in BXF Protocol Documentation&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:element&gt;   &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>
--	---

element **NonProgramDetail/Product/Name**

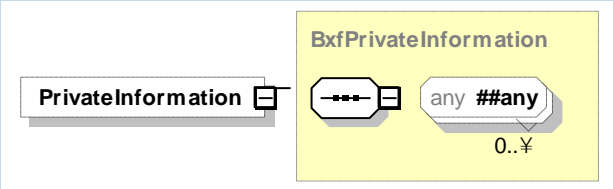
diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				

	<a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	<a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	optional optional optional
annotation	documentation Product name for commercial spot content		
source	<pre>&lt;xs:element name="Name" type="BxfText"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Product name for commercial spot content&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>		

#### element NonProgramDetail/Product/ProductCode

diagram			
namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<b>xs:string</b>		
properties	isRef        0 minOcc       0 maxOcc       1 content       simple		
annotation	documentation Recommend use of TVB EDI Value that indicates the category of product (eg "Alcoholic Beverages") or see Configuration Section in BXF Protocol Documentation		
source	<pre>&lt;xs:element name="ProductCode" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Recommend use of TVB EDI Value that indicates the category of product (eg "Alcoholic Beverages") or see Configuration Section in BXF Protocol Documentation&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>		

#### element NonProgramDetail/Product/PrivateInformation

diagram			
namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">BxfPrivateInformation</a>		



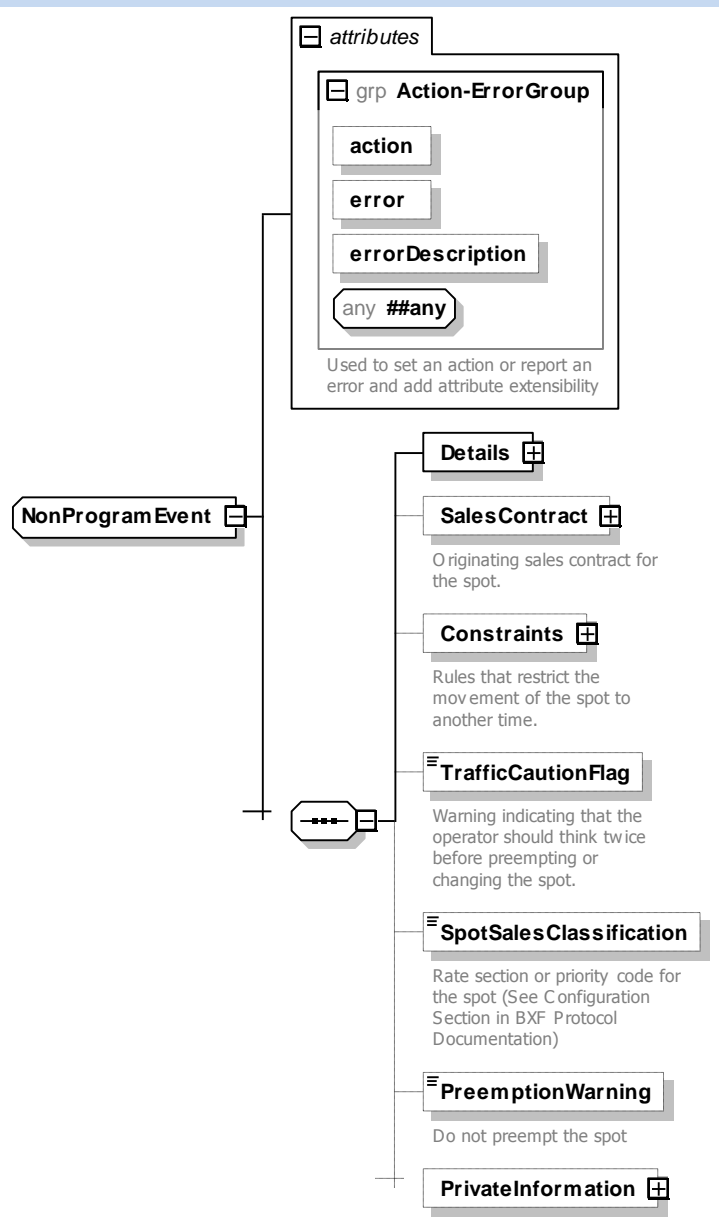
properties	isRef0 minOcc0 maxOcc1 contentcomplex
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

element **NonProgramDetail/PrivateInformation**

diagram	<p>The diagram shows a class-like box labeled 'PrivateInformation' with a small square icon on its right side. A dashed line with an open arrow points from this box to a yellow box labeled 'BxfPrivateInformation'. Inside the yellow box, there is a smaller box containing the text 'any ##any' and '0..1' below it.</p>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	isRef0 minOcc0 maxOcc1 contentcomplex
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

# complexType NonProgramEvent

diagram



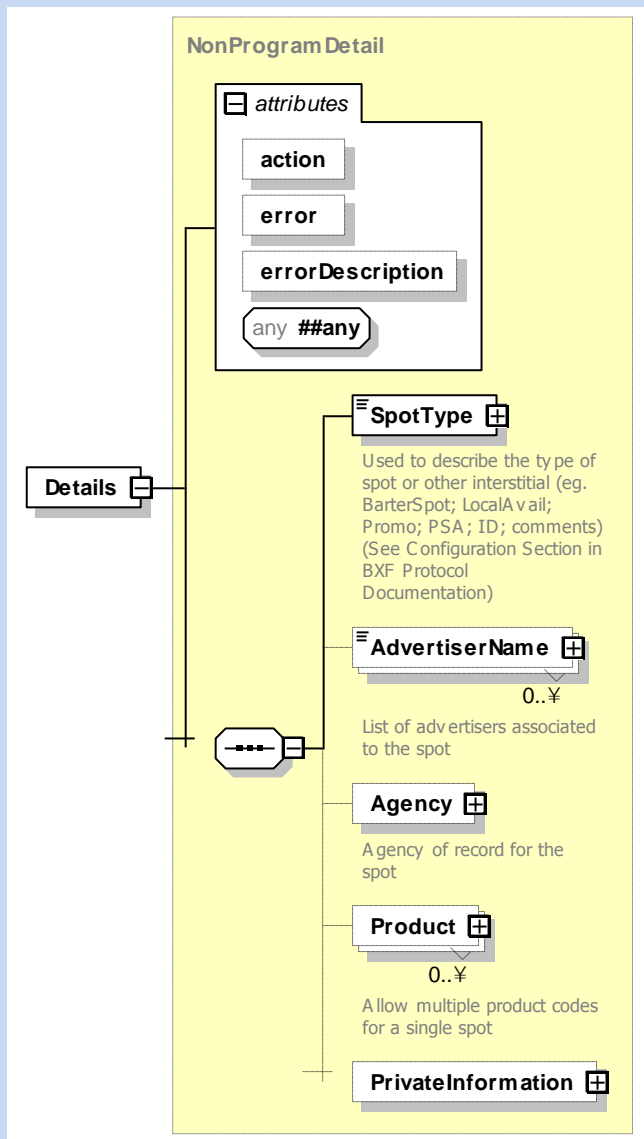
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [Details](#) [SalesContract](#) [Constraints](#) [TrafficCautionFlag](#) [SpotSalesClassification](#) [PreemptionWarning](#) [PrivateInformation](#)

used by	elements <a href="#">PrimaryEvent/NonProgramEvent</a> <a href="#">NonPrimaryEvent/NonProgramEvents</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<pre> &lt;xs:complexType name="NonProgramEvent"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="Details" type="NonProgramDetail"/&gt;     &lt;xs:element name="SalesContract" type="SalesContract" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Originating sales contract for the spot.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Constraints" type="Constraint" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Rules that restrict the movement of the spot to another time.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="TrafficCautionFlag" type="xs:boolean" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Warning indicating that the operator should think twice before preempting or changing the spot.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="SpotSalesClassification" type="xs:string" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Rate section or priority code for the spot (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PreemptionWarning" type="xs:boolean" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Do not preempt the spot&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>					

# element **NonProgramEvent/Details**

diagram

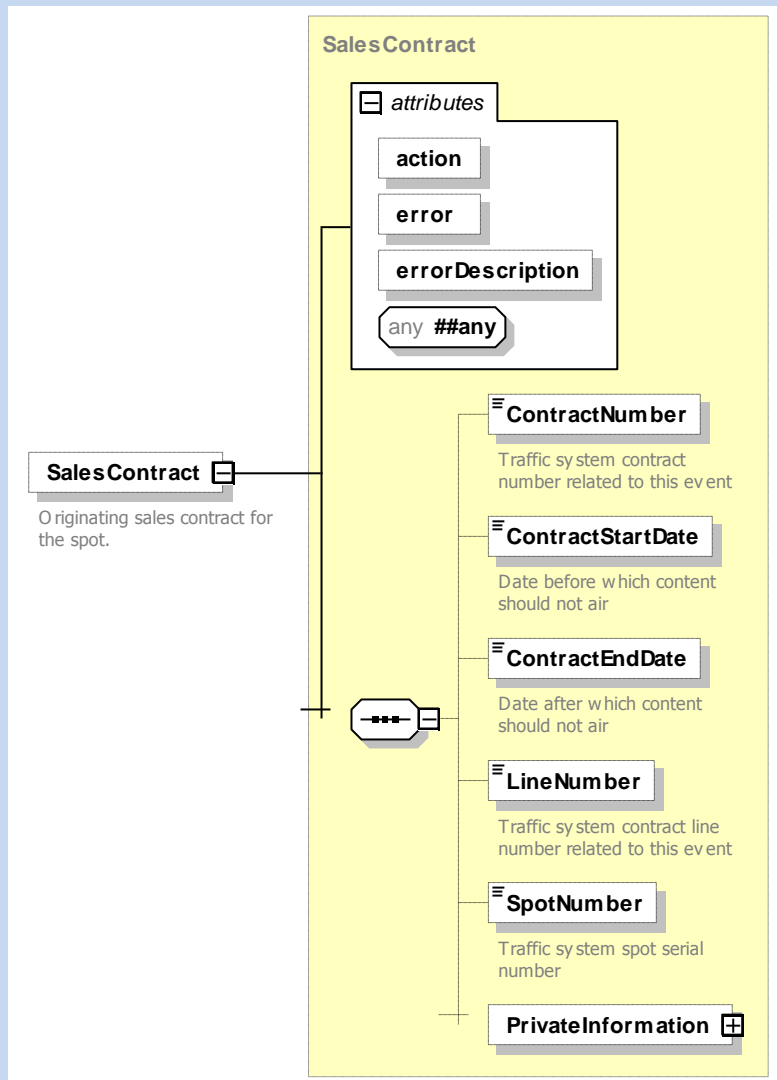


namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">NonProgramDetail</a>		
properties	isRef	0	
	content	complex	

children	<a href="#">SpotType</a> <a href="#">AdvertiserName</a> <a href="#">Agency</a> <a href="#">Product</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="Details" type="NonProgramDetail"/>					

element **NonProgramEvent/SalesContract**

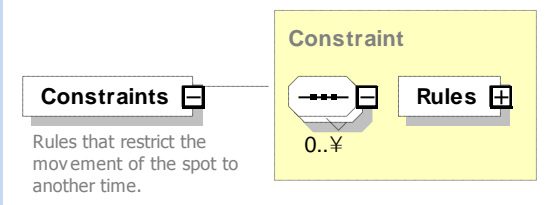
diagram



namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>		
type	<a href="#">SalesContract</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	complex	
children	<a href="#">ContractNumber</a> <a href="#">ContractStartDate</a> <a href="#">ContractEndDate</a> <a href="#">LineNumber</a> <a href="#">SpotNumber</a> <a href="#">PrivateInformation</a>		

attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Originating sales contract for the spot.					
source	<pre>&lt;xs:element name="SalesContract" type="SalesContract" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Originating sales contract for the spot.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

#### element **NonProgramEvent/Constraints**

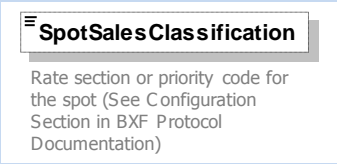
diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">Constraint</a>					
properties	isRef        0 minOcc       0 maxOcc       1 content       complex					
children	<a href="#">Rules</a>					
annotation	documentation Rules that restrict the movement of the spot to another time.					
source	<pre>&lt;xs:element name="Constraints" type="Constraint" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Rules that restrict the movement of the spot to another time.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

#### element **NonProgramEvent/TrafficCautionFlag**


diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					

type	<b>xs:boolean</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Warning indicating that the operator should think twice before preempting or changing the spot.
source	<pre>&lt;xs:element name="TrafficCautionFlag" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Warning indicating that the operator should think twice before preempting or changing the spot.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **NonProgramEvent/SpotSalesClassification**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Rate section or priority code for the spot (See Configuration Section in BXF Protocol Documentation)
source	<pre>&lt;xs:element name="SpotSalesClassification" type="xs:string" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Rate section or priority code for the spot (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **NonProgramEvent/PreemptionWarning**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:boolean</b>
properties	isRef 0 minOcc 0 maxOcc 1



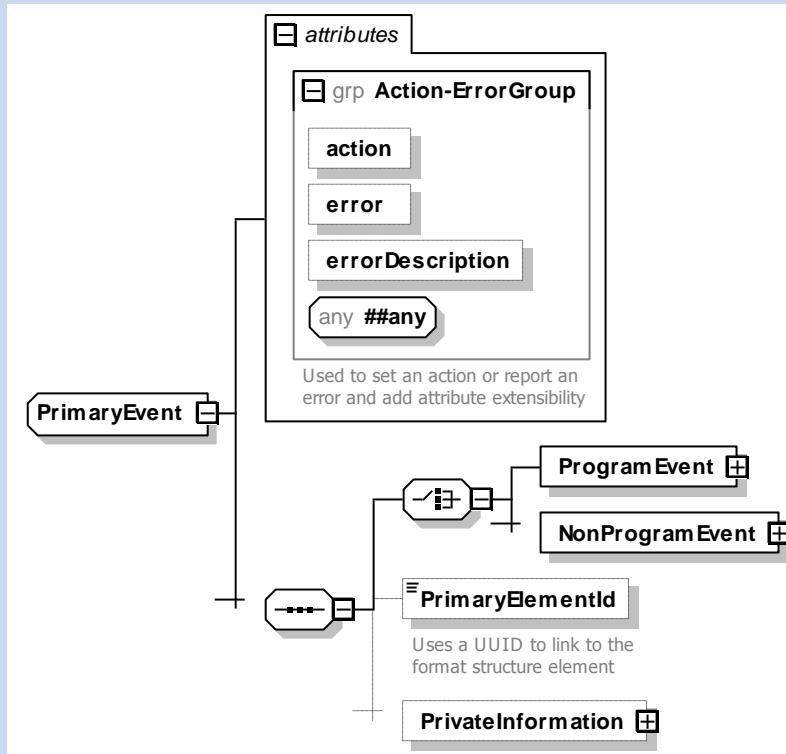
	content      simple
annotation	documentation Do not preempt the spot
source	<xs:element name="PreemptionWarning" type="xs:boolean" minOccurs="0"> <xs:annotation> <xs:documentation>Do not preempt the spot</xs:documentation> </xs:annotation> </xs:element>

element **NonProgramEvent/PrivateInformation**

diagram	<p>The diagram shows a class-like box labeled 'PrivateInformation' with a small square icon to its right. A line connects this box to a yellow box labeled 'BxfPrivateInformation'. Inside the yellow box, there is a box labeled 'any ##any' with a multiplicity of '0..1' below it.</p>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	isRef      0 minOcc     0 maxOcc     1 content    complex
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

## complexType PrimaryEvent

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [ProgramEvent](#) [NonProgramEvent](#) [PrimaryElementId](#) [PrivateInformation](#)

used by element [EventData/PrimaryEvent](#)

attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			

source

```
<xs:complexType name="PrimaryEvent">
  <xs:sequence>
    <xs:choice>
      <xs:element name="ProgramEvent" type="ProgramEvent"/>
      <xs:element name="NonProgramEvent" type="NonProgramEvent"/>
    </xs:choice>
    <xs:element name="PrimaryElementId" type="Uuid" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Uses a UUID to link to the format structure element</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
```

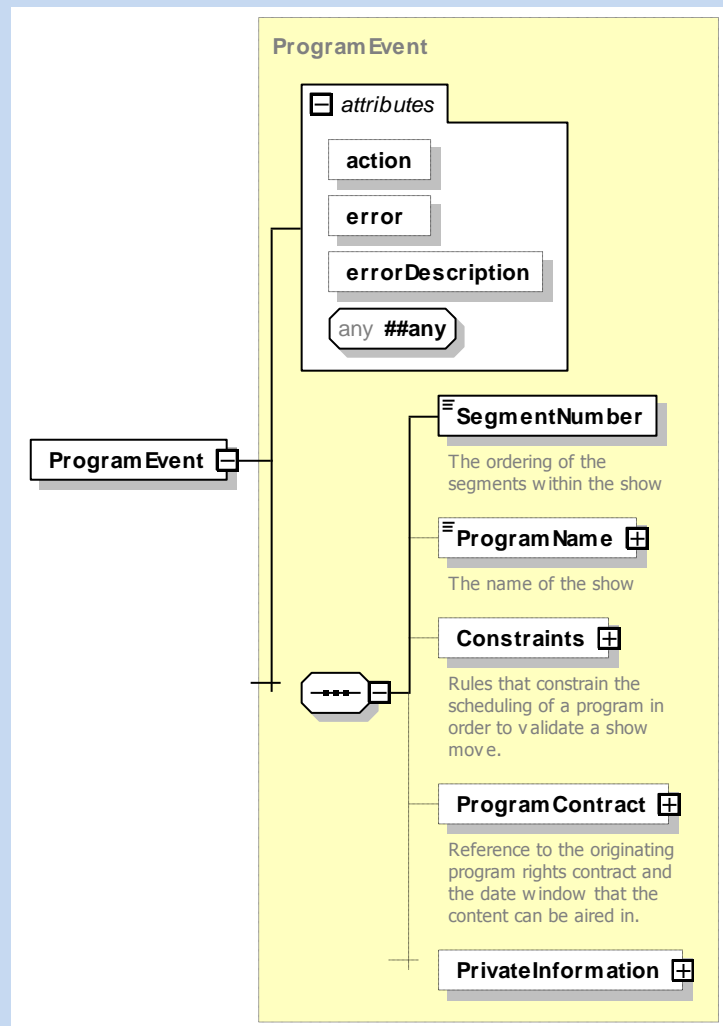
```

</xs:sequence>
<xs:attributeGroup ref="Action-ErrorGroup"/>
</xs:complexType>

```

## element **PrimaryEvent/ProgramEvent**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

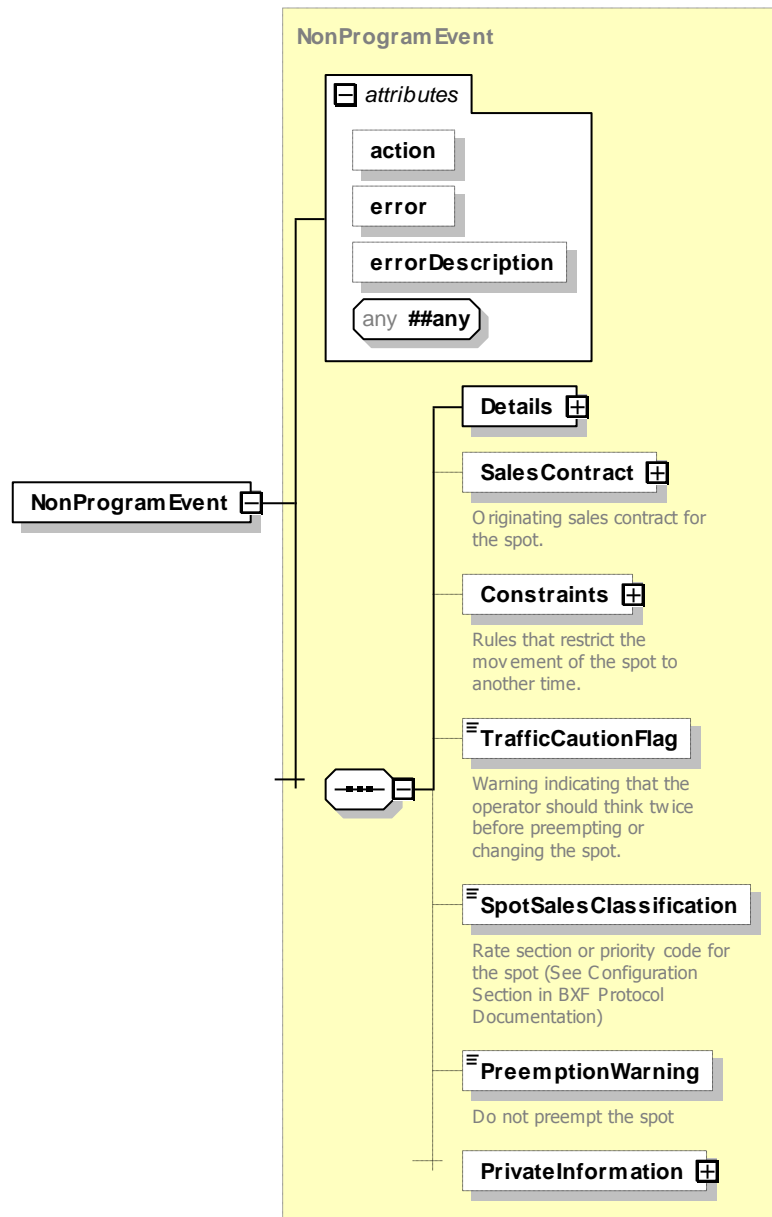
type [ProgramEvent](#)

properties  
isRef 0  
content complex

children	<a href="#">SegmentNumber</a> <a href="#">ProgramName</a> <a href="#">Constraints</a> <a href="#">ProgramContract</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="ProgramEvent" type="ProgramEvent"/>					

element **PrimaryEvent/NonProgramEvent**

diagram



namespace

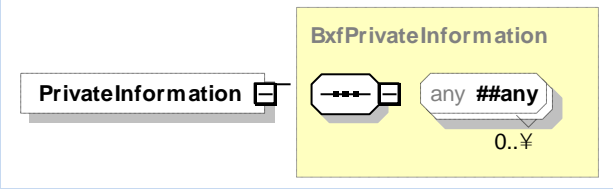
<http://smpte-ra.org/schemas/2021/2008/BXF>

type	<a href="#">NonProgramEvent</a>					
properties	isRef	0				
	content	complex				
children	<a href="#">Details</a> <a href="#">SalesContract</a> <a href="#">Constraints</a> <a href="#">TrafficCautionFlag</a> <a href="#">SpotSalesClassification</a> <a href="#">PreemptionWarning</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<xs:element name="NonProgramEvent" type="NonProgramEvent"/>					

## element PrimaryEvent/PrimaryElementId

diagram	<div><div><div>☰</div><div>PrimaryElementId</div></div><div>Uses a UUID to link to the format structure element</div></div>		
namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">Uuid</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	simple	
facets	length	45	
	pattern	urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}	
annotation	documentation Uses a UUID to link to the format structure element		
source	<pre>&lt;xs:element name="PrimaryElementId" type="Uuid" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Uses a UUID to link to the format structure element&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>		

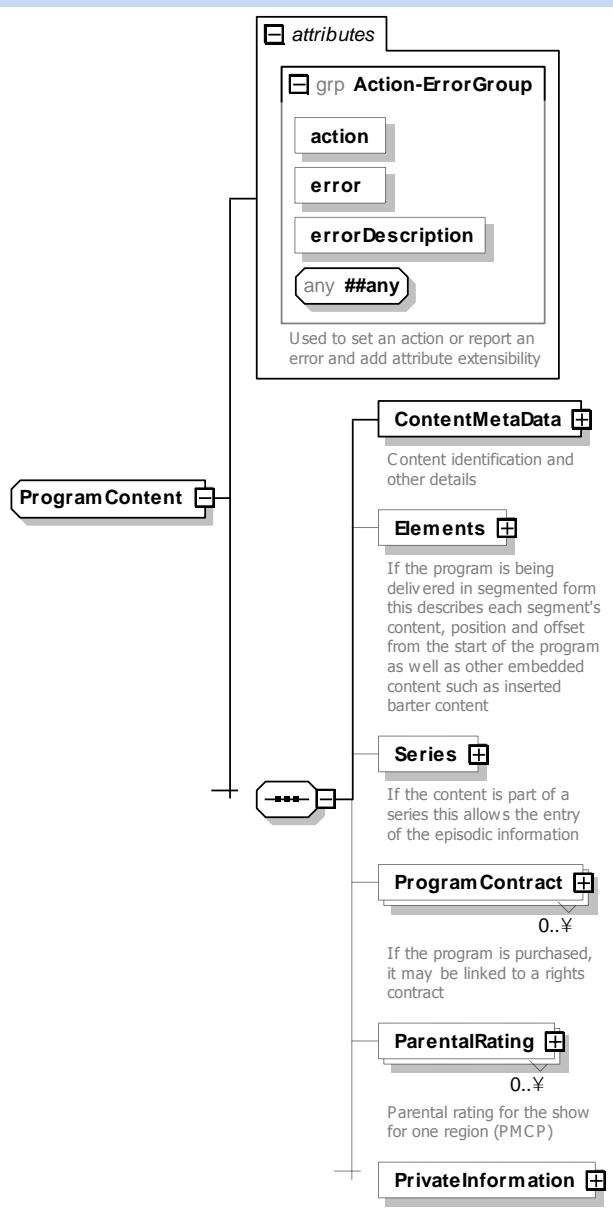
## element PrimaryEvent/PrivateInformation

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfPrivateInformation</a>					

properties	isRef        0 minOcc      0 maxOcc      1 content      complex
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

# complexType ProgramContent

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

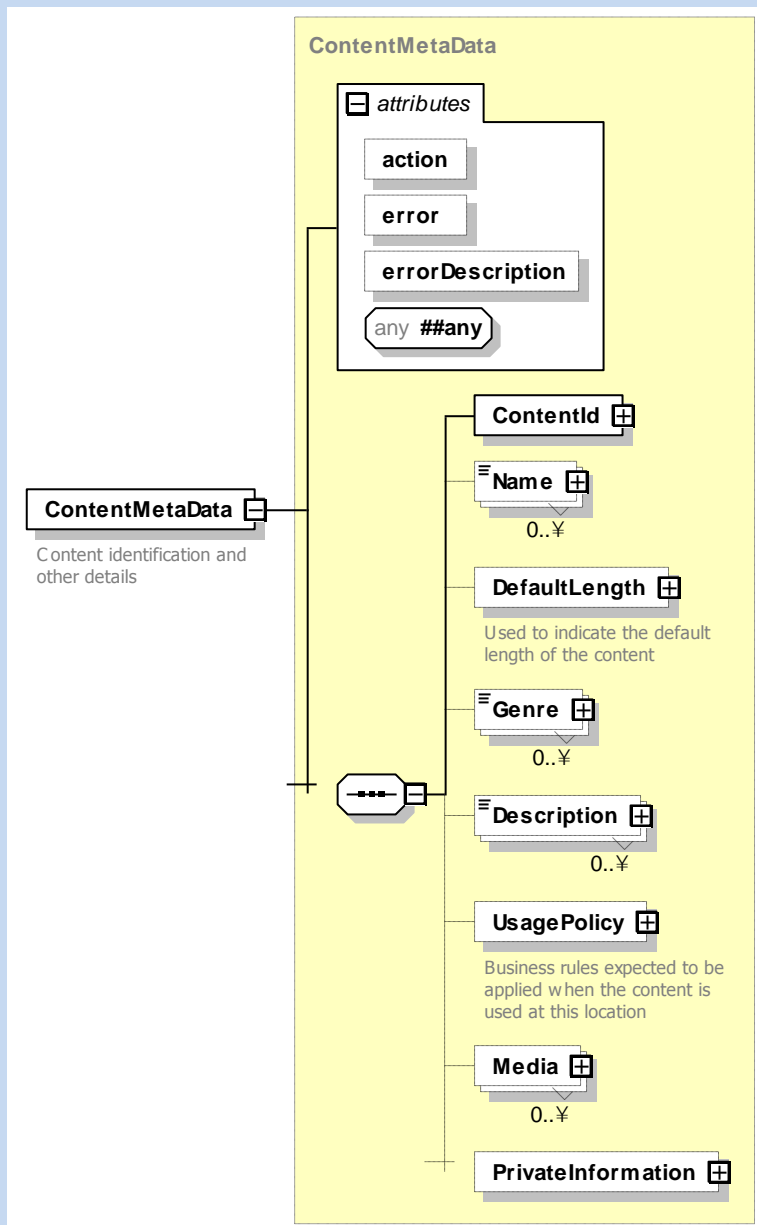
children [ContentMetaData](#) [Elements](#) [Series](#) [ProgramContract](#) [ParentalRating](#) [PrivateInformation](#)



used by	element <a href="#">Content/ProgramContent</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<pre> &lt;xs:complexType name="ProgramContent"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="ContentMetaData" type="ContentMetaData"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Content identification and other details&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Elements" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;If the program is being delivered in segmented form this describes each segment's content, position and offset from the start of the program as well as other embedded content such as inserted barter content&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence&gt;           &lt;xs:element name="Element" type="Element" maxOccurs="unbounded"/&gt;         &lt;/xs:sequence&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Series" type="Series" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;If the content is part of a series this allows the entry of the episodic information&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ProgramContract" type="ProgramContract" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;If the program is purchased, it may be linked to a rights contract&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ParentalRating" type="BxfParentalRating" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Parental rating for the show for one region (PMCP)&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>					

# element **ProgramContent/ContentMetaData**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

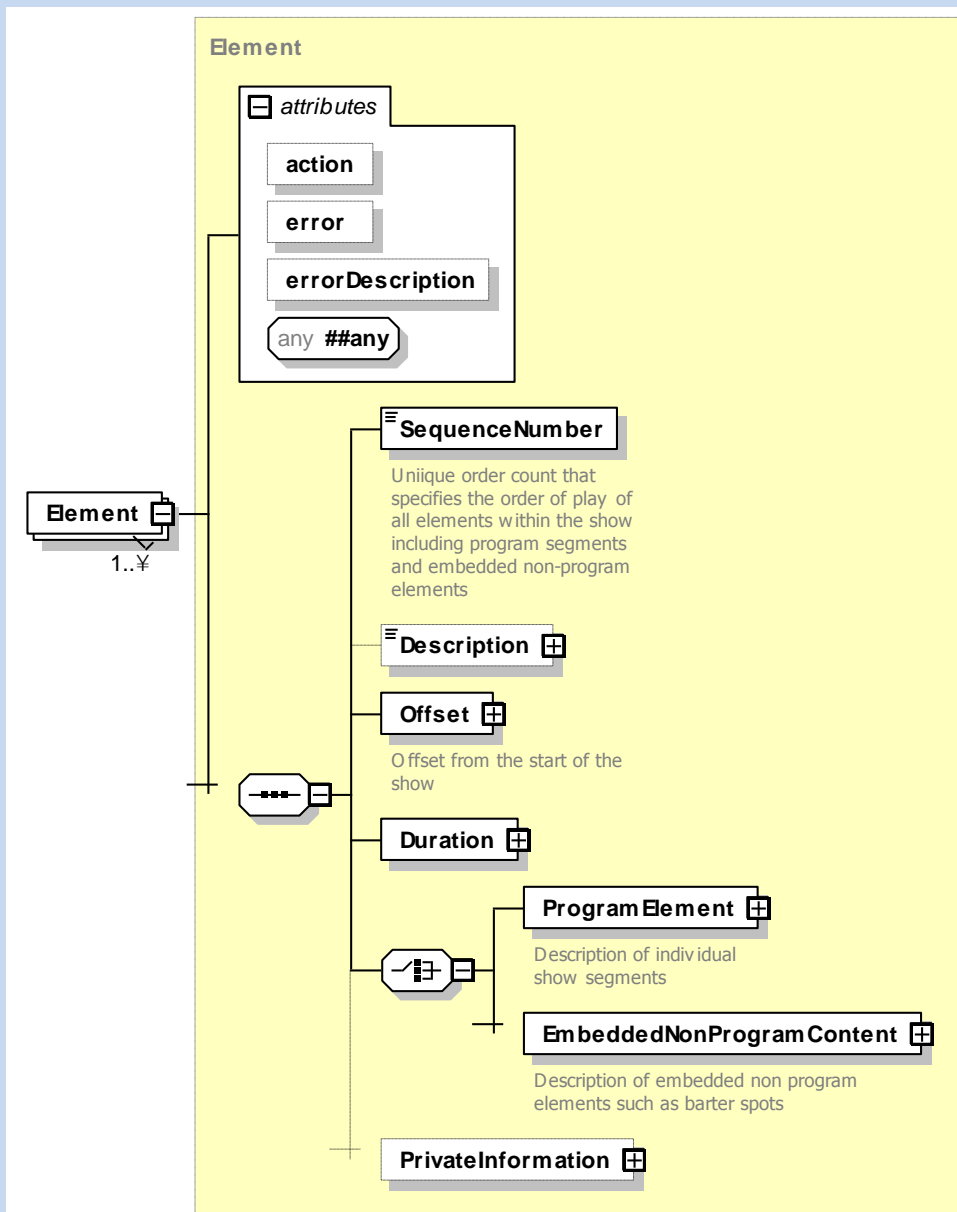
type [ContentMetaData](#)

properties	isRef content	0 complex				
children	<a href="#">ContentId</a> <a href="#">Name</a> <a href="#">DefaultLength</a> <a href="#">Genre</a> <a href="#">Description</a> <a href="#">UsagePolicy</a> <a href="#">Media</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Content identification and other details					
source	<xs:element name="ContentMetaData" type="ContentMetaData"> <xs:annotation> <xs:documentation>Content identification and other details</xs:documentation> </xs:annotation> </xs:element>					

### element **ProgramContent/Elements**

diagram	<div><div><div>Elements</div><div>If the program is being delivered in segmented form this describes each segment's content, position and offset from the start of the program as well as other embedded content such as inserted barter content</div></div><div><div>Element</div><div>1..¥</div></div></div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	Element
annotation	documentation If the program is being delivered in segmented form this describes each segment's content, position and offset from the start of the program as well as other embedded content such as inserted barter content
source	<xs:element name="Elements" minOccurs="0"> <xs:annotation> <xs:documentation>If the program is being delivered in segmented form this describes each segment's content, position and offset from the start of the program as well as other embedded content such as inserted barter content</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element name="Element" type="Element" maxOccurs="unbounded"/> </xs:sequence> </xs:complexType> </xs:element>

diagram



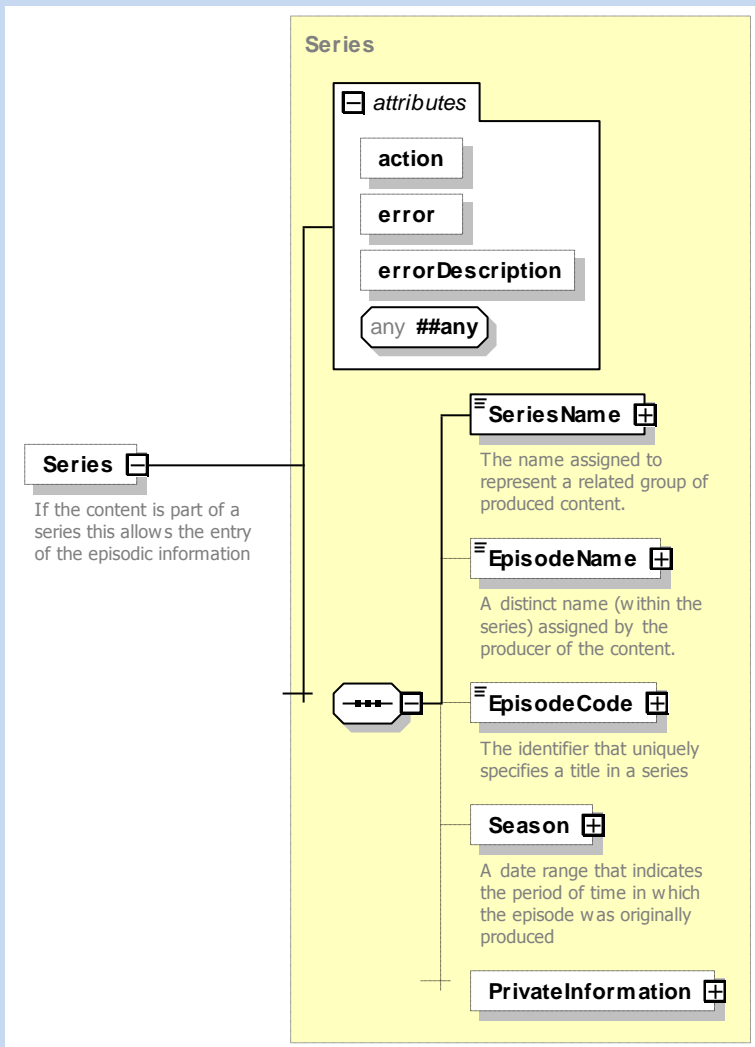
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [Element](#)

properties	isRef minOcc maxOcc content	0 1 unbounded complex				
children	<a href="#">SequenceNumber</a> <a href="#">Description</a> <a href="#">Offset</a> <a href="#">Duration</a> <a href="#">ProgramElement</a> <a href="#">EmbeddedNonProgramContent</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="Element" type="Element" maxOccurs="unbounded"/>					

# element **ProgramContent/Series**

diagram

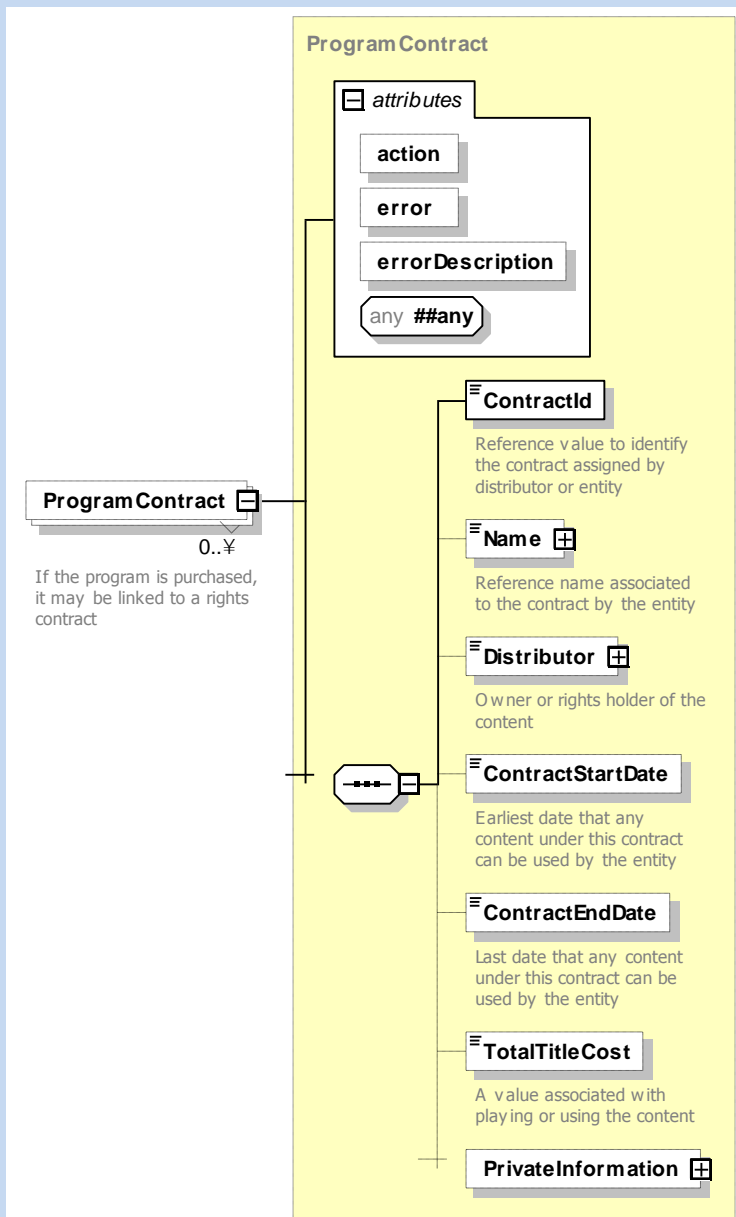


namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">Series</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	complex	
children	<a href="#">SeriesName</a> <a href="#">EpisodeName</a> <a href="#">EpisodeCode</a> <a href="#">Season</a> <a href="#">PrivateInformation</a>		

attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation If the content is part of a series this allows the entry of the episodic information					
source	<pre> &lt;xs:element name="Series" type="Series" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If the content is part of a series this allows the entry of the episodic information&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

# element **ProgramContent/ProgramContract**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

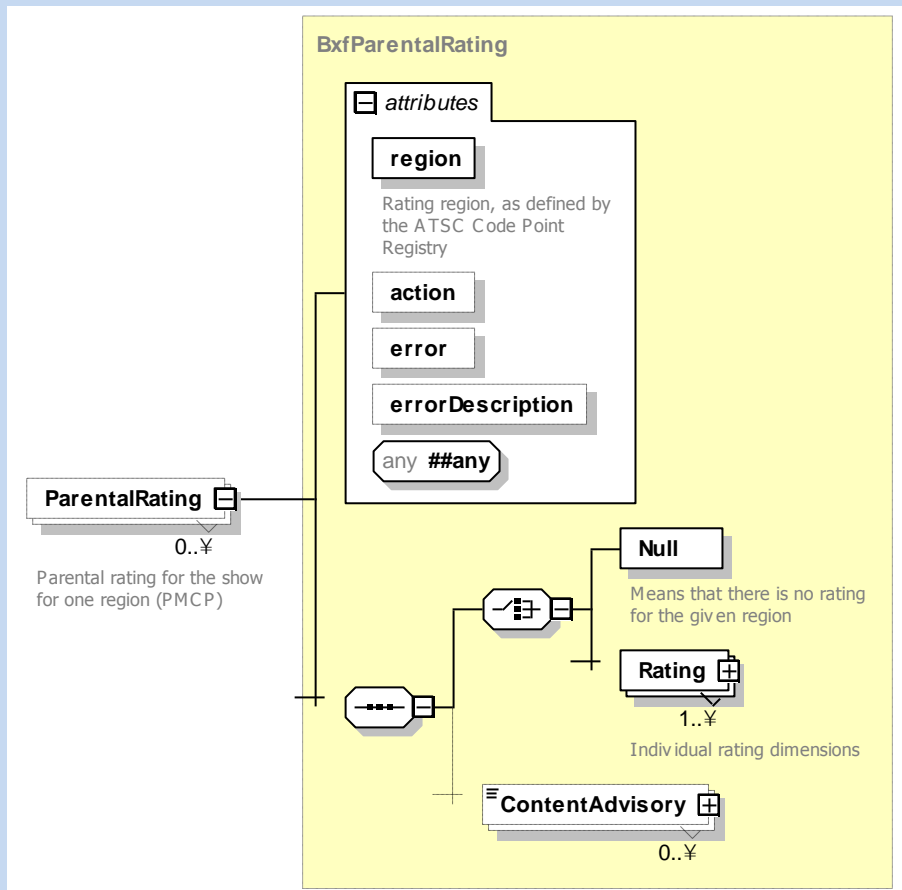
type [ProgramContract](#)



properties	isRef minOcc maxOcc content	0 0 unbounded complex				
children	<a href="#">ContractId</a> <a href="#">Name</a> <a href="#">Distributor</a> <a href="#">ContractStartDate</a> <a href="#">ContractEndDate</a> <a href="#">TotalTitleCost</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation If the program is purchased, it may be linked to a rights contract					
source	<pre>&lt;xs:element name="ProgramContract" type="ProgramContract" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If the program is purchased, it may be linked to a rights contract&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

element **ProgramContent/ParentalRating**

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfParentalRating</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	unbounded				
	content	complex				
children	<a href="#">Null</a> <a href="#">Rating</a> <a href="#">ContentAdvisory</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">region</a>	<b>xs:unsignedByte</b>	required			documentation Rating region, as defined by the ATSC Code Point Registry
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			

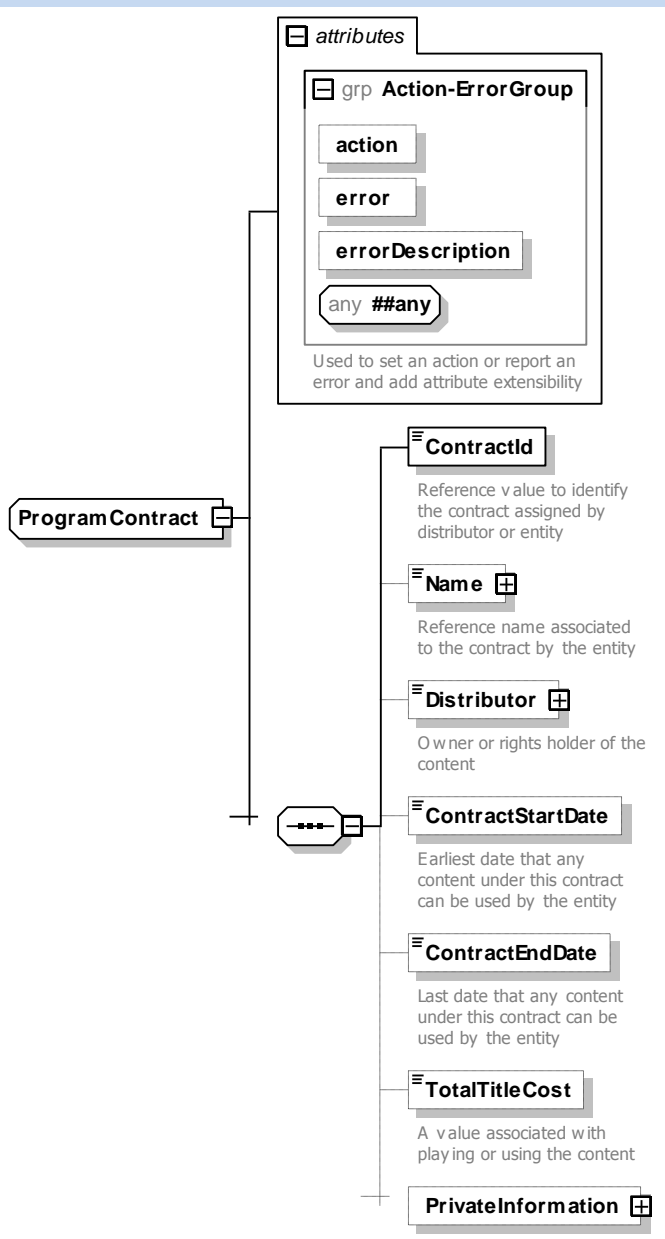
annotation	documentation Parental rating for the show for one region (PMCP)
source	<xs:element name="ParentalRating" type="BxfParentalRating" minOccurs="0" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>Parental rating for the show for one region (PMCP)</xs:documentation> </xs:annotation> </xs:element>

element **ProgramContent/PrivateInformation**

diagram	<p>The diagram shows a box labeled 'PrivateInformation' with a small square icon to its right. An arrow points from this box to a yellow box labeled 'BxfPrivateInformation'. Inside the yellow box, there is a UML multiplicity notation: a box containing 'any' and '##any', with '0..∞' below it.</p>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	isRef        0 minOcc      0 maxOcc      1 content     complex
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

# complexType ProgramContract

diagram

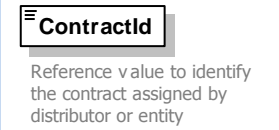


namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

children	<a href="#">ContractId</a> <a href="#">Name</a> <a href="#">Distributor</a> <a href="#">ContractStartDate</a> <a href="#">ContractEndDate</a> <a href="#">TotalTitleCost</a> <a href="#">PrivateInformation</a>					
used by	elements	<a href="#">ProgramContent/ProgramContract</a> <a href="#">ProgramEvent/ProgramContract</a>				
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<pre> &lt;xs:complexType name="ProgramContract"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="ContractId" type="xs:positiveInteger"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Reference value to identify the contract assigned by distributor or entity&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Name" type="BxfText" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Reference name associated to the contract by the entity&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Distributor" type="BxfText" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Owner or rights holder of the content&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ContractStartDate" type="xs:date" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Earliest date that any content under this contract can be used by the entity&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ContractEndDate" type="xs:date" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Last date that any content under this contract can be used by the entity&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="TotalTitleCost" type="xs:decimal" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A value associated with playing or using the content&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>					

#### element **ProgramContract/ContractId**

diagram	
---------	---

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:positiveInteger</b>
properties	isRef 0 content simple
annotation	documentation Reference value to identify the contract assigned by distributor or entity
source	<pre> &lt;xs:element name="ContractId" type="xs:positiveInteger"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Reference value to identify the contract assigned by distributor or entity&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

element **ProgramContract/Name**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef 0 minOcc 0 maxOcc 1 content complex					
attributes	Name <a href="#">lang</a> <a href="#">size</a> <a href="#">type</a>	Type <a href="#">pmcp:languageType</a> xs:positiveInteger xs:string	Use	Default	Fixed	annotation

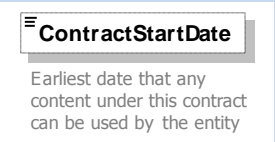
	<a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	<a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	optional optional optional
annotation	documentation Reference name associated to the contract by the entity		
source	<xs:element name="Name" type="BxfText" minOccurs="0"> <xs:annotation> <xs:documentation>Reference name associated to the contract by the entity</xs:documentation> </xs:annotation> </xs:element>		

element **ProgramContract/Distributor**


diagram	<div> <div> <div>Distributor</div> <div>Owner or rights holder of the content</div> </div> <div> <div>BxfText</div> <div> <div>attributes</div> <div> <div>lang</div> <div>size</div> <div>type</div> <div>action</div> <div>error</div> <div>errorDescription</div> <div>any ##any</div> </div> </div> </div> </div>					
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<b>xs:positiveInteger</b>				
	<a href="#">type</a>	<b>xs:string</b>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			

annotation	documentation Owner or rights holder of the content
source	<pre>&lt;xs:element name="Distributor" type="BxfText" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Owner or rights holder of the content&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **ProgramContract/ContractStartDate**

diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:date</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	documentation Earliest date that any content under this contract can be used by the entity								
source	<pre>&lt;xs:element name="ContractStartDate" type="xs:date" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Earliest date that any content under this contract can be used by the entity&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

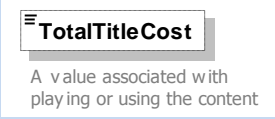
#### element **ProgramContract/ContractEndDate**

diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:date</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	documentation Last date that any content under this contract can be used by the entity								
source	<pre>&lt;xs:element name="ContractEndDate" type="xs:date" minOccurs="0"&gt;   &lt;xs:annotation&gt;</pre>								

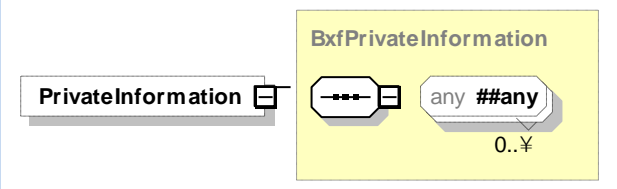


	<code>&lt;xs:documentation&gt;Last date that any content under this contract can be used by the entity&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>
--	---

#### element **ProgramContract/TotalTitleCost**

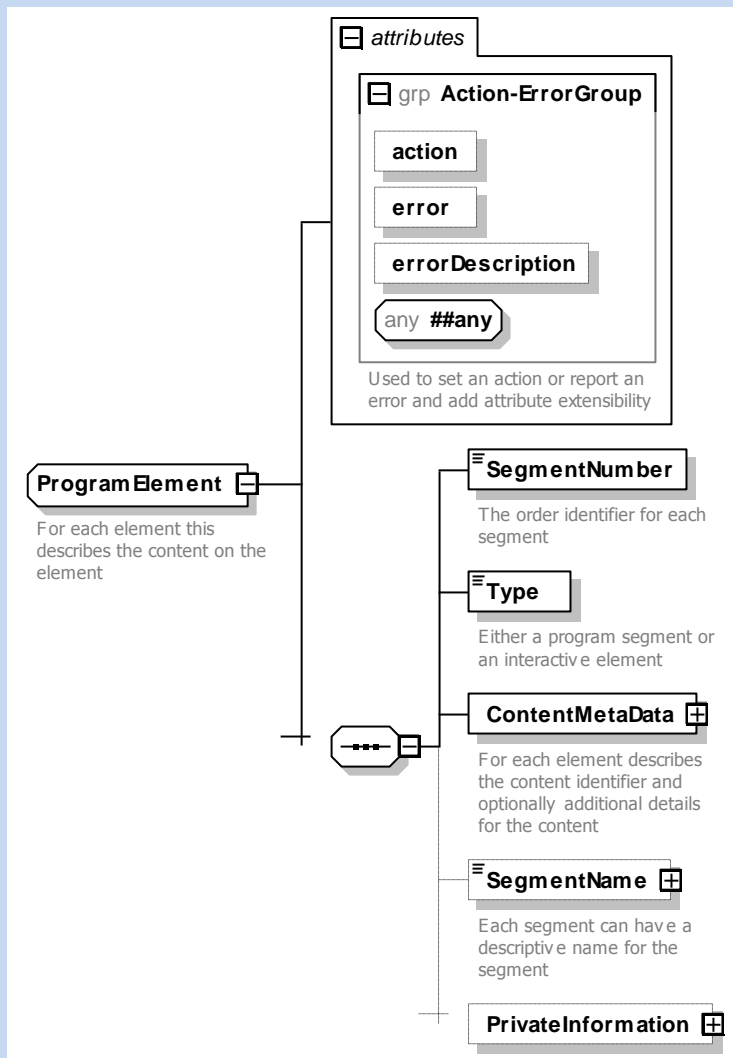
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:decimal</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation A value associated with playing or using the content
source	<code>&lt;xs:element name="TotalTitleCost" type="xs:decimal" minOccurs="0"&gt;</code> <code>&lt;xs:annotation&gt;</code> <code>&lt;xs:documentation&gt;A value associated with playing or using the content&lt;/xs:documentation&gt;</code> <code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>

#### element **ProgramContract/PrivateInformation**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
source	<code>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</code>

# complexType ProgramElement

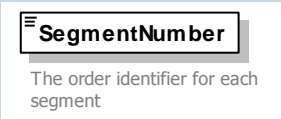
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
children	<a href="#">SegmentNumber</a> <a href="#">Type</a> <a href="#">ContentMetaData</a> <a href="#">SegmentName</a> <a href="#">PrivateInformation</a>					
used by	element <a href="#">Element/ProgramElement</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use optional optional optional	Default	Fixed	annotation

annotation	documentation For each element this describes the content on the element
source	<pre> &lt;xs:complexType name="ProgramElement"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;For each element this describes the content on the element&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="SegmentNumber" type="xs:int"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The order identifier for each segment&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Type" type="ProgramContentType" default="ProgramSegment"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Either a program segment or an interactive element&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ContentMetaData" type="ContentMetaData"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;For each element describes the content identifier and optionally additional details for the content&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="SegmentName" type="BxfText" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Each segment can have a descriptive name for the segment&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>

#### element ProgramElement/SegmentNumber

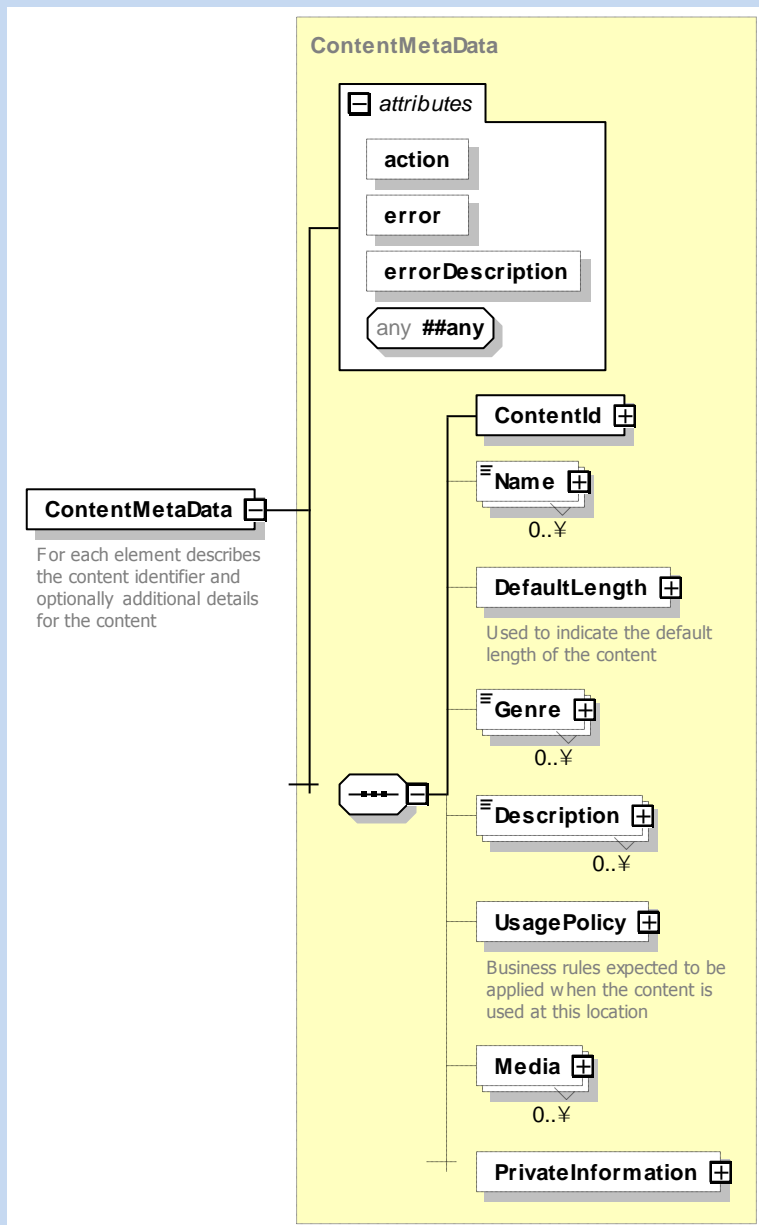
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	xs:int
properties	isRef 0 content simple
annotation	documentation The order identifier for each segment
source	<pre> &lt;xs:element name="SegmentNumber" type="xs:int"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The order identifier for each segment&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

# element **ProgramElement/Type**

diagram	<div> <div> <div>Type</div> </div> <div> Either a program segment or an interactive element </div> </div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">ProgramContentType</a>
properties	isRef 0 content simple default ProgramSegment
facets	enumeration Interactive enumeration ProgramSegment
annotation	documentation Either a program segment or an interactive element
source	<pre> &lt;xs:element name="Type" type="ProgramContentType" default="ProgramSegment"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Either a program segment or an interactive element&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

# element **ProgramElement/ContentMetaData**

diagram

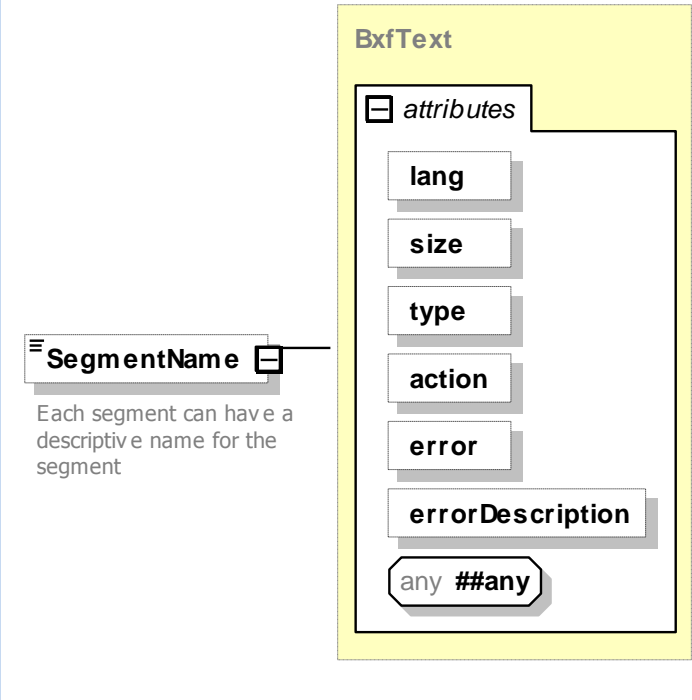


namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [ContentMetaData](#)

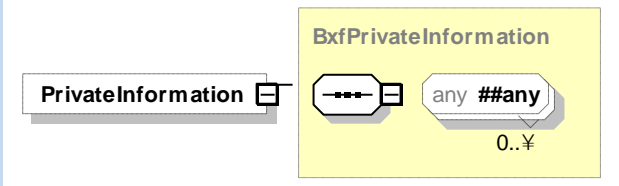
properties	isRef content	0 complex				
children	<a href="#">ContentId</a> <a href="#">Name</a> <a href="#">DefaultLength</a> <a href="#">Genre</a> <a href="#">Description</a> <a href="#">UsagePolicy</a> <a href="#">Media</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation For each element describes the content identifier and optionally additional details for the content					
source	<pre>&lt;xs:element name="ContentMetaData" type="ContentMetaData"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;For each element describes the content identifier and optionally additional details for the content&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

element **ProgramElement/SegmentName**

diagram						
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>					
type	<a href="#">BxfText</a>					
properties	isRef minOcc maxOcc	0 0 1				

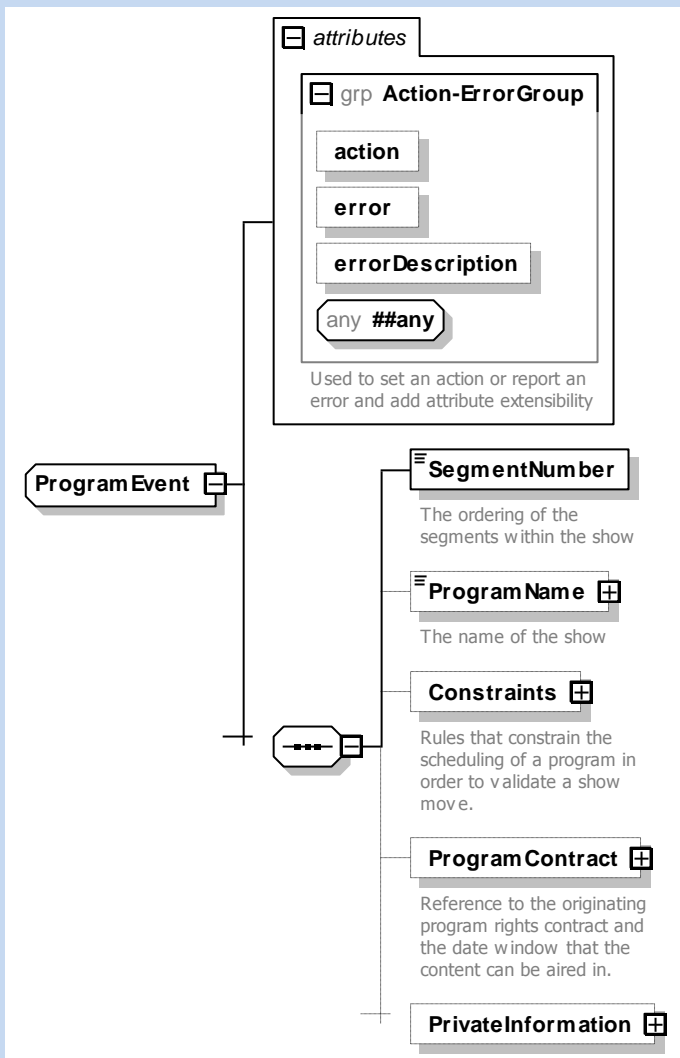
	content	complex					
attributes	Name <a href="#">lang</a> <a href="#">size</a> <a href="#">type</a> <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:languageType</a> <b>xs:positiveInteger</b> <b>xs:string</b> <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use   optional optional optional	Default	Fixed	annotation	
annotation	documentation Each segment can have a descriptive name for the segment						
source	<pre>&lt;xs:element name="SegmentName" type="BxfText" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Each segment can have a descriptive name for the segment&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>						

### element **ProgramElement/PrivateInformation**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	<div><div>isRef</div><div>0</div></div> <div><div>minOcc</div><div>0</div></div> <div><div>maxOcc</div><div>1</div></div> <div><div>content</div><div>complex</div></div>
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

# complexType ProgramEvent

diagram

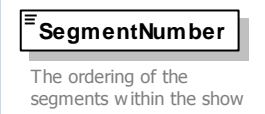


namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
children	<a href="#">SegmentNumber</a> <a href="#">ProgramName</a> <a href="#">Constraints</a> <a href="#">ProgramContract</a> <a href="#">PrivateInformation</a>					
used by	element <a href="#">PrimaryEvent/ProgramEvent</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use optional optional optional	Default	Fixed	annotation

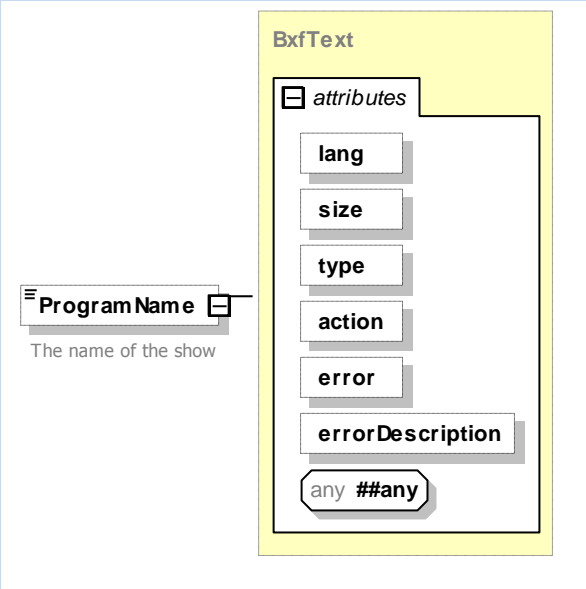


source	<pre> &lt;xs:complexType name="ProgramEvent"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="SegmentNumber" type="xs:integer"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The ordering of the segments within the show&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ProgramName" type="BxfText" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The name of the show&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Constraints" type="Constraint" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Rules that constrain the scheduling of a program in order to validate a show move.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ProgramContract" type="ProgramContract" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Reference to the originating program rights contract and the date window that the content can be aired in.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--------	--

#### element **ProgramEvent/SegmentNumber**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:integer</b>
properties	isRef 0 content simple
annotation	documentation The ordering of the segments within the show
source	<pre> &lt;xs:element name="SegmentNumber" type="xs:integer"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The ordering of the segments within the show&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

element **ProgramEvent/ProgramName**

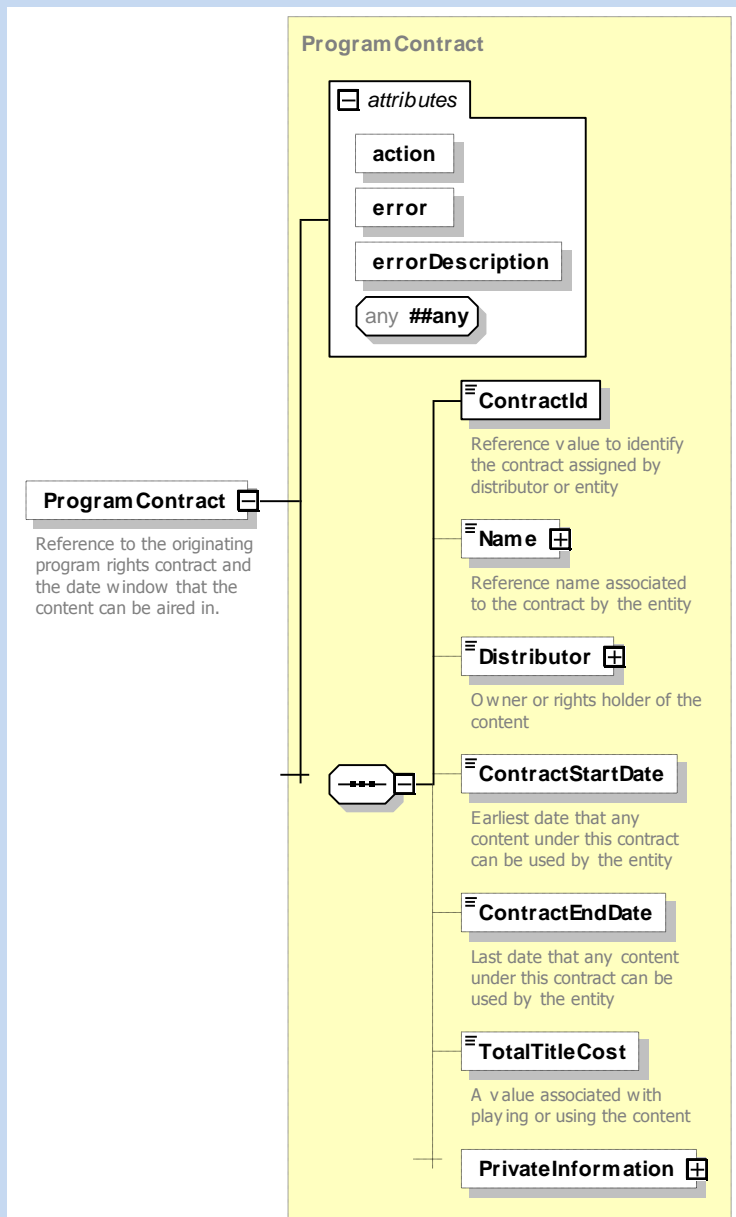
diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
annotation	documentation The name of the show					
source	<pre>&lt;xs:element name="ProgramName" type="BxfText" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The name of the show&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

# element **ProgramEvent/Constraints**

diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">Constraint</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
children	<a href="#">Rules</a>								
annotation	<p>documentation</p> <p>Rules that constrain the scheduling of a program in order to validate a show move.</p>								
source	<pre> &lt;xs:element name="Constraints" type="Constraint" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Rules that constrain the scheduling of a program in order to validate a show move.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>								

element **ProgramEvent/ProgramContract**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [ProgramContract](#)

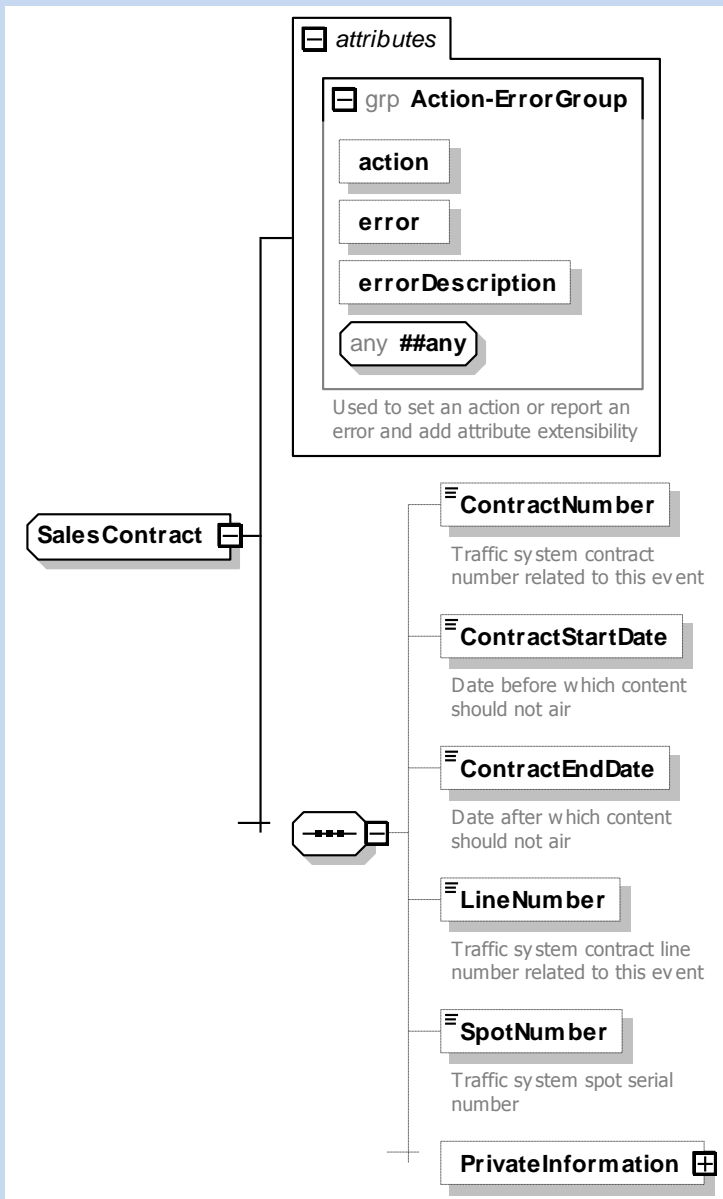
properties	isRef0 minOcc0 maxOcc1 contentcomplex																								
children	<a href="#">ContractId</a> <a href="#">Name</a> <a href="#">Distributor</a> <a href="#">ContractStartDate</a> <a href="#">ContractEndDate</a> <a href="#">TotalTitleCost</a> <a href="#">PrivateInformation</a>																								
attributes	<table><tr><td>Name</td><td>Type</td><td>Use</td><td>Default</td><td>Fixed</td><td>annotation</td></tr><tr><td><a href="#">action</a></td><td><a href="#">pmcp:actionType</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">error</a></td><td><a href="#">BxfError</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">errorDescription</a></td><td><b>xs:string</b></td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional				<a href="#">error</a>	<a href="#">BxfError</a>	optional				<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
Name	Type	Use	Default	Fixed	annotation																				
<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional																							
<a href="#">error</a>	<a href="#">BxfError</a>	optional																							
<a href="#">errorDescription</a>	<b>xs:string</b>	optional																							
annotation	documentation Reference to the originating program rights contract and the date window that the content can be aired in.																								
source	<xs:element name="ProgramContract" type="ProgramContract" minOccurs="0"> <xs:annotation> <xs:documentation>Reference to the originating program rights contract and the date window that the content can be aired in.</xs:documentation> </xs:annotation> </xs:element>																								

### element **ProgramEvent/PrivateInformation**

diagram	<pre> classDiagram     class PrivateInformation     class BxfPrivateInformation     PrivateInformation &lt; -- BxfPrivateInformation     BxfPrivateInformation "0..1" --&gt; BxfPrivateInformation </pre>
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>
type	<a href="#">BxfPrivateInformation</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
source	<pre>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</pre>

# complexType SalesContract

diagram



namespace

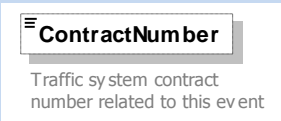
<http://smpte-ra.org/schemas/2021/2008/BXF>

children

[ContractNumber](#) [ContractStartDate](#) [ContractEndDate](#) [LineNumber](#) [SpotNumber](#) [PrivateInformation](#)


used by	elements <a href="#">NonProgramContent/SalesContract</a> <a href="#">NonProgramEvent/SalesContract</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<pre> &lt;xs:complexType name="SalesContract"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="ContractNumber" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Traffic system contract number related to this event&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:minLength value="1"/&gt;           &lt;xs:maxLength value="255"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ContractStartDate" type="xs:dateTime" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Date before which content should not air&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ContractEndDate" type="xs:dateTime" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Date after which content should not air&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="LineNumber" type="xs:positiveInteger" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Traffic system contract line number related to this event&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="SpotNumber" type="xs:positiveInteger" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Traffic system spot serial number&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>					

#### element **SalesContract/ContractNumber**

diagram	
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>

type	restriction of <b>xs:string</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	minLength 1 maxLength 255
annotation	documentation Traffic system contract number related to this event
source	<pre> &lt;xs:element name="ContractNumber" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Traffic system contract number related to this event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **SalesContract/ContractStartDate**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:dateTime</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Date before which content should not air
source	<pre> &lt;xs:element name="ContractStartDate" type="xs:dateTime" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date before which content should not air&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

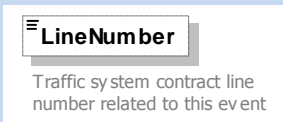
#### element **SalesContract/ContractEndDate**

diagram	
---------	---

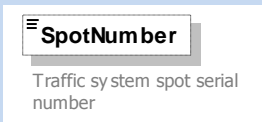


namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:dateTime</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Date after which content should not air
source	<pre>&lt;xs:element name="ContractEndDate" type="xs:dateTime" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date after which content should not air&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element SalesContract/LineNumber

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:positiveInteger</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Traffic system contract line number related to this event
source	<pre>&lt;xs:element name="LineNumber" type="xs:positiveInteger" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Traffic system contract line number related to this event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element SalesContract/SpotNumber

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:positiveInteger</b>
properties	isRef 0 minOcc 0

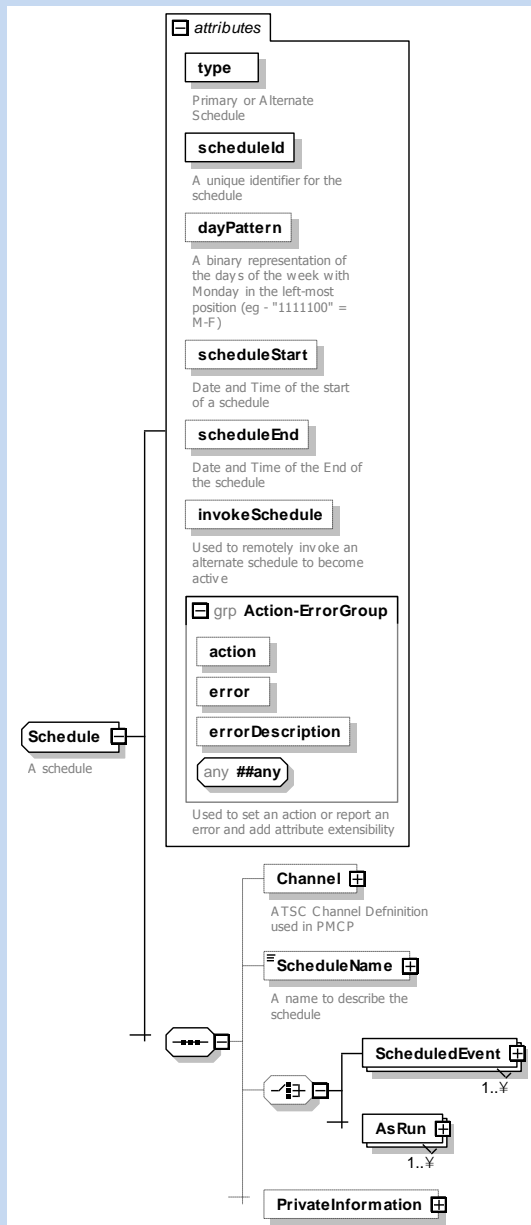
	maxOcc 1 content simple
annotation	documentation Traffic system spot serial number
source	<pre>&lt;xs:element name="SpotNumber" type="xs:positiveInteger" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Traffic system spot serial number&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **SalesContract/PrivateInformation**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
source	<pre>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</pre>

# complexType Schedule

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [Channel](#) [ScheduleName](#) [ScheduledEvent](#) [AsRun](#) [PrivateInformation](#)



	<pre> &lt;xs:annotation&gt;   &lt;xs:documentation&gt;A unique identifier for the schedule&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="dayPattern" type="DayPattern"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A binary representation of the days of the week with Monday in the left-most position (eg - "1111100" = M-F)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="scheduleStart" type="xs:dateTime" use="optional"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date and Time of the start of a schedule&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="scheduleEnd" type="xs:dateTime" use="optional"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date and Time of the End of the schedule&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="invokeSchedule" type="xs:boolean"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to remotely invoke an alternate schedule to become active&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	--

#### attribute **Schedule/@type**

type	<a href="#">ScheduleType</a>
properties	isRef 0 use required
facets	enumeration Primary enumeration Alternate
annotation	documentation Primary or Alternate Schedule
source	<pre> &lt;xs:attribute name="type" type="ScheduleType" use="required"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Primary or Alternate Schedule&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **Schedule/@scheduleId**

type	<a href="#">Uuid</a>
properties	isRef 0 use required
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}
annotation	documentation A unique identifier for the schedule

source	<pre> &lt;xs:attribute name="scheduleId" type="Uuid" use="required"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A unique identifier for the schedule&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>
--------	---

#### attribute **Schedule/@dayPattern**

type	<a href="#">DayPattern</a>
properties	isRef 0
facets	length 7 pattern [0,1]{7}
annotation	documentation A binary representation of the days of the week with Monday in the left-most position (eg - "1111100" = M-F)
source	<pre> &lt;xs:attribute name="dayPattern" type="DayPattern"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A binary representation of the days of the week with Monday in the left-most position (eg - "1111100" = M-F)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **Schedule/@scheduleStart**

type	<b>xs:dateTime</b>
properties	isRef 0 use optional
annotation	documentation Date and Time of the start of a schedule
source	<pre> &lt;xs:attribute name="scheduleStart" type="xs:dateTime" use="optional"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date and Time of the start of a schedule&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

#### attribute **Schedule/@scheduleEnd**

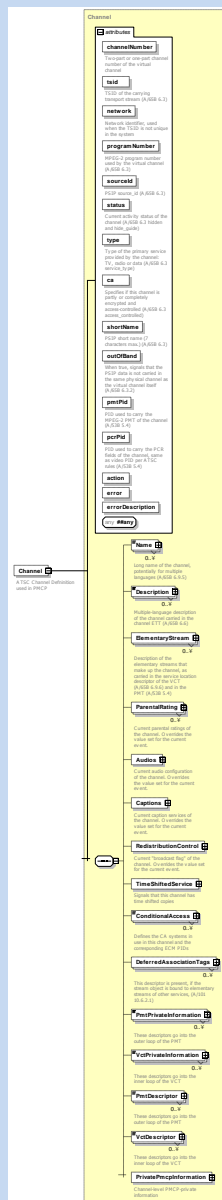
type	<b>xs:dateTime</b>
properties	isRef 0 use optional
annotation	documentation Date and Time of the End of the schedule
source	<pre> &lt;xs:attribute name="scheduleEnd" type="xs:dateTime" use="optional"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date and Time of the End of the schedule&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

# attribute **Schedule/@invokeSchedule**

type	<b>xs:boolean</b>
properties	isRef 0
annotation	documentation Used to remotely invoke an alternate schedule to become active
source	<pre> &lt;xs:attribute name="invokeSchedule" type="xs:boolean"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to remotely invoke an alternate schedule to become active&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>

# element Schedule/Channel

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

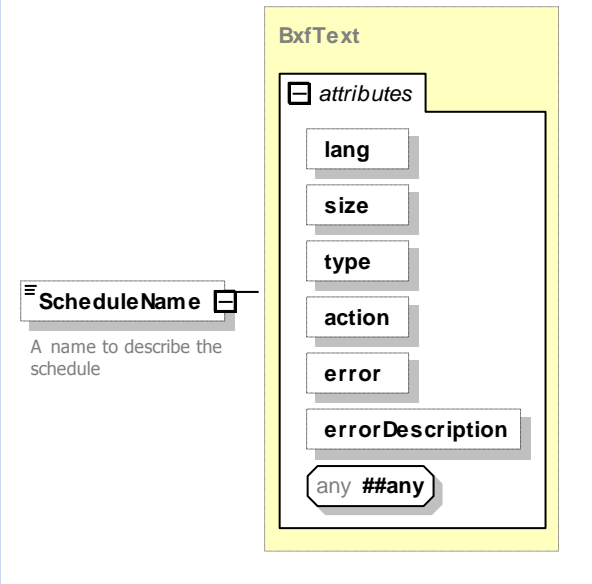
type

[Channel](#)



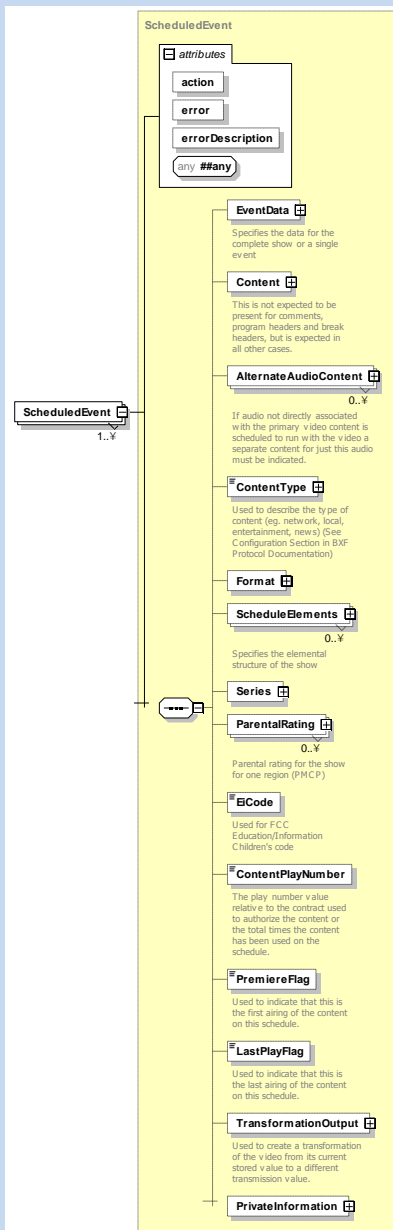
properties	isRef0 minOcc0 maxOcc1 contentcomplex																																																																																																
children	<a href="#">Name</a> <a href="#">Description</a> <a href="#">ElementaryStream</a> <a href="#">ParentalRating</a> <a href="#">Audios</a> <a href="#">Captions</a> <a href="#">RedistributionControl</a> <a href="#">TimeShiftedService</a> <a href="#">ConditionalAccess</a> <a href="#">DeferredAssociationTags</a> <a href="#">PmtPrivateInformation</a> <a href="#">VctPrivateInformation</a> <a href="#">PmtDescriptor</a> <a href="#">VctDescriptor</a> <a href="#">PrivatePmcplInformation</a>																																																																																																
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>annotation</th></tr><tr><td><a href="#">channelNumber</a></td><td><a href="#">pmcp:channelNumberType</a></td><td>optional</td><td></td><td></td><td>documentation Two-part or one-part channel number of the virtual channel</td></tr><tr><td><a href="#">tsid</a></td><td>xs:unsignedShort</td><td>optional</td><td></td><td></td><td>documentation TSID of the carrying transport stream (A/65B 6.3)</td></tr><tr><td><a href="#">network</a></td><td>xs:unsignedShort</td><td>optional</td><td></td><td></td><td>documentation Network identifier, used when the TSID is not unique in the system</td></tr><tr><td><a href="#">programNumber</a></td><td>xs:unsignedShort</td><td>optional</td><td></td><td></td><td>documentation MPEG-2 program number used by the virtual channel (A/65B 6.3)</td></tr><tr><td><a href="#">sourceId</a></td><td>xs:unsignedShort</td><td>optional</td><td></td><td></td><td>documentation PSIP source_id (A/65B 6.3)</td></tr><tr><td><a href="#">status</a></td><td><a href="#">pmcp:channelStatusType</a></td><td>optional</td><td></td><td></td><td>documentation Current activity status of the channel (A/65B 6.3 hidden and hide_guide)</td></tr><tr><td><a href="#">type</a></td><td><a href="#">pmcp:serviceType</a></td><td>optional</td><td></td><td></td><td>documentation Type of the primary service provided by the channel: TV, radio or data (A/65B 6.3 service_type)</td></tr><tr><td><a href="#">ca</a></td><td>xs:boolean</td><td>optional</td><td></td><td></td><td>documentation Specifies if this channel is partly or completely encrypted and access-controlled (A/65B 6.3 access_controlled)</td></tr><tr><td><a href="#">shortName</a></td><td><a href="#">pmcp:shortNameType</a></td><td>optional</td><td></td><td></td><td>documentation PSIP short name (7 characters max.) (A/65B 6.3)</td></tr><tr><td><a href="#">outOfBand</a></td><td>xs:boolean</td><td>optional</td><td></td><td></td><td>documentation When true, signals that the PSIP data is not carried in the same physical channel as the virtual channel itself (A/65B 6.3.2)</td></tr><tr><td><a href="#">pmtPid</a></td><td><a href="#">pmcp:pidType</a></td><td>optional</td><td></td><td></td><td>documentation PID used to carry the MPEG-2 PMT of the channel (A/53B 5.4)</td></tr><tr><td><a href="#">pcrPid</a></td><td><a href="#">pmcp:pidType</a></td><td>optional</td><td></td><td></td><td>documentation PID used to carry the PCR fields of the channel, same as video PID per ATSC rules (A/53B 5.4)</td></tr><tr><td><a href="#">action</a></td><td><a href="#">pmcp:actionType</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">error</a></td><td><a href="#">pmcp:errorType</a></td><td>optional</td><td></td><td></td><td></td></tr><tr><td><a href="#">errorDescription</a></td><td>xs:string</td><td>optional</td><td></td><td></td><td></td></tr></table>	Name	Type	Use	Default	Fixed	annotation	<a href="#">channelNumber</a>	<a href="#">pmcp:channelNumberType</a>	optional			documentation Two-part or one-part channel number of the virtual channel	<a href="#">tsid</a>	xs:unsignedShort	optional			documentation TSID of the carrying transport stream (A/65B 6.3)	<a href="#">network</a>	xs:unsignedShort	optional			documentation Network identifier, used when the TSID is not unique in the system	<a href="#">programNumber</a>	xs:unsignedShort	optional			documentation MPEG-2 program number used by the virtual channel (A/65B 6.3)	<a href="#">sourceId</a>	xs:unsignedShort	optional			documentation PSIP source_id (A/65B 6.3)	<a href="#">status</a>	<a href="#">pmcp:channelStatusType</a>	optional			documentation Current activity status of the channel (A/65B 6.3 hidden and hide_guide)	<a href="#">type</a>	<a href="#">pmcp:serviceType</a>	optional			documentation Type of the primary service provided by the channel: TV, radio or data (A/65B 6.3 service_type)	<a href="#">ca</a>	xs:boolean	optional			documentation Specifies if this channel is partly or completely encrypted and access-controlled (A/65B 6.3 access_controlled)	<a href="#">shortName</a>	<a href="#">pmcp:shortNameType</a>	optional			documentation PSIP short name (7 characters max.) (A/65B 6.3)	<a href="#">outOfBand</a>	xs:boolean	optional			documentation When true, signals that the PSIP data is not carried in the same physical channel as the virtual channel itself (A/65B 6.3.2)	<a href="#">pmtPid</a>	<a href="#">pmcp:pidType</a>	optional			documentation PID used to carry the MPEG-2 PMT of the channel (A/53B 5.4)	<a href="#">pcrPid</a>	<a href="#">pmcp:pidType</a>	optional			documentation PID used to carry the PCR fields of the channel, same as video PID per ATSC rules (A/53B 5.4)	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional				<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional				<a href="#">errorDescription</a>	xs:string	optional			
Name	Type	Use	Default	Fixed	annotation																																																																																												
<a href="#">channelNumber</a>	<a href="#">pmcp:channelNumberType</a>	optional			documentation Two-part or one-part channel number of the virtual channel																																																																																												
<a href="#">tsid</a>	xs:unsignedShort	optional			documentation TSID of the carrying transport stream (A/65B 6.3)																																																																																												
<a href="#">network</a>	xs:unsignedShort	optional			documentation Network identifier, used when the TSID is not unique in the system																																																																																												
<a href="#">programNumber</a>	xs:unsignedShort	optional			documentation MPEG-2 program number used by the virtual channel (A/65B 6.3)																																																																																												
<a href="#">sourceId</a>	xs:unsignedShort	optional			documentation PSIP source_id (A/65B 6.3)																																																																																												
<a href="#">status</a>	<a href="#">pmcp:channelStatusType</a>	optional			documentation Current activity status of the channel (A/65B 6.3 hidden and hide_guide)																																																																																												
<a href="#">type</a>	<a href="#">pmcp:serviceType</a>	optional			documentation Type of the primary service provided by the channel: TV, radio or data (A/65B 6.3 service_type)																																																																																												
<a href="#">ca</a>	xs:boolean	optional			documentation Specifies if this channel is partly or completely encrypted and access-controlled (A/65B 6.3 access_controlled)																																																																																												
<a href="#">shortName</a>	<a href="#">pmcp:shortNameType</a>	optional			documentation PSIP short name (7 characters max.) (A/65B 6.3)																																																																																												
<a href="#">outOfBand</a>	xs:boolean	optional			documentation When true, signals that the PSIP data is not carried in the same physical channel as the virtual channel itself (A/65B 6.3.2)																																																																																												
<a href="#">pmtPid</a>	<a href="#">pmcp:pidType</a>	optional			documentation PID used to carry the MPEG-2 PMT of the channel (A/53B 5.4)																																																																																												
<a href="#">pcrPid</a>	<a href="#">pmcp:pidType</a>	optional			documentation PID used to carry the PCR fields of the channel, same as video PID per ATSC rules (A/53B 5.4)																																																																																												
<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional																																																																																															
<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional																																																																																															
<a href="#">errorDescription</a>	xs:string	optional																																																																																															
annotation	documentation ATSC Channel Defninition used in PMCP																																																																																																
source	<xs:element name="Channel" type="Channel" minOccurs="0"> <xs:annotation> <xs:documentation>ATSC Channel Defninition used in PMCP</xs:documentation> </xs:annotation> </xs:element>																																																																																																

# element **Schedule/ScheduleName**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<b>xs:positiveInteger</b>				
	<a href="#">type</a>	<b>xs:string</b>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation A name to describe the schedule					
source	<pre> &lt;xs:element name="ScheduleName" type="BxfText" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A name to describe the schedule&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;           </pre>					

# element **Schedule/ScheduledEvent**

diagram



namespace

<http://smpte-ra.org/schemas/2021/2008/BXF>

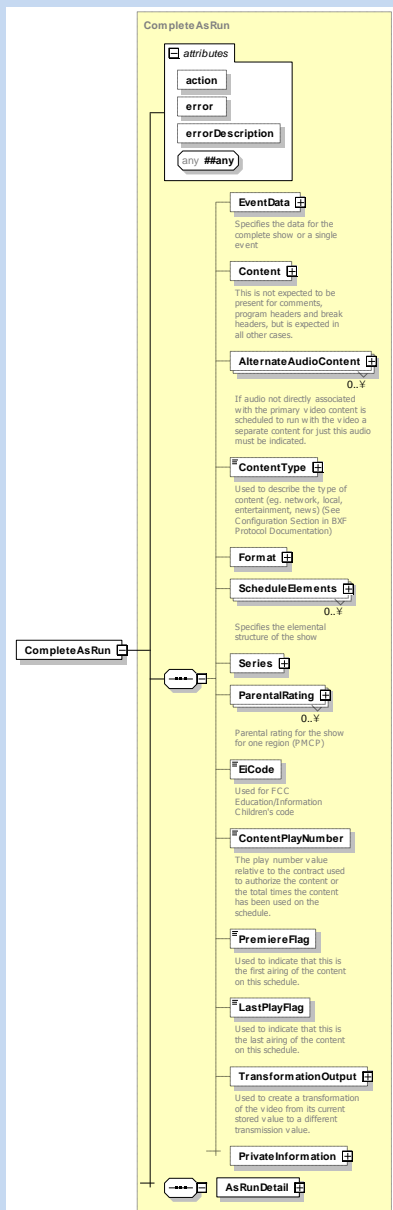
type	<a href="#">ScheduledEvent</a>					
properties	isRef	0				
	minOcc	1				
	maxOcc	unbounded				
	content	complex				
children	<a href="#">EventData</a> <a href="#">Content</a> <a href="#">AlternateAudioContent</a> <a href="#">ContentType</a> <a href="#">Format</a> <a href="#">ScheduleElements</a> <a href="#">Series</a> <a href="#">ParentalRating</a> <a href="#">EiCode</a> <a href="#">ContentPlayNumber</a> <a href="#">PremiereFlag</a> <a href="#">LastPlayFlag</a> <a href="#">TransformationOutput</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
source	<xs:element name="ScheduledEvent" type="ScheduledEvent" maxOccurs="unbounded"/>					

#### element **Schedule/AsRun**

diagram	<pre> classDiagram     class AsRun {         "1..∞"     }     class CompleteAsRun {         "1"     }     class BasicAsRun {         "1"     }     AsRun "1..∞" -- "1" Choice     Choice -- "1" CompleteAsRun     Choice -- "1" BasicAsRun         </pre>					
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
properties	isRef	0				
	minOcc	1				
	maxOcc	unbounded				
	content	complex				
children	<a href="#">CompleteAsRun</a> <a href="#">BasicAsRun</a>					
source	<pre> &lt;xs:element name="AsRun" maxOccurs="unbounded"&gt;   &lt;xs:complexType&gt;     &lt;xs:choice&gt;       &lt;xs:element name="CompleteAsRun" type="CompleteAsRun"/&gt;       &lt;xs:element name="BasicAsRun" type="BasicAsRun"/&gt;     &lt;/xs:choice&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>					

## element Schedule/AsRun/CompleteAsRun

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [CompleteAsRun](#)

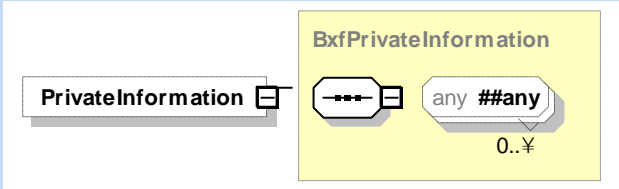
properties	isRef content	0 complex				
children	<a href="#">EventData</a> <a href="#">Content</a> <a href="#">AlternateAudioContent</a> <a href="#">ContentType</a> <a href="#">Format</a> <a href="#">ScheduleElements</a> <a href="#">Series</a> <a href="#">ParentalRating</a> <a href="#">EiCode</a> <a href="#">ContentPlayNumber</a> <a href="#">PremiereFlag</a> <a href="#">LastPlayFlag</a> <a href="#">TransformationOutput</a> <a href="#">PrivateInformation</a> <a href="#">AsRunDetail</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="CompleteAsRun" type="CompleteAsRun"/>					

element **Schedule/AsRun/BasicAsRun**

diagram	
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>
type	<a href="#">BasicAsRun</a>

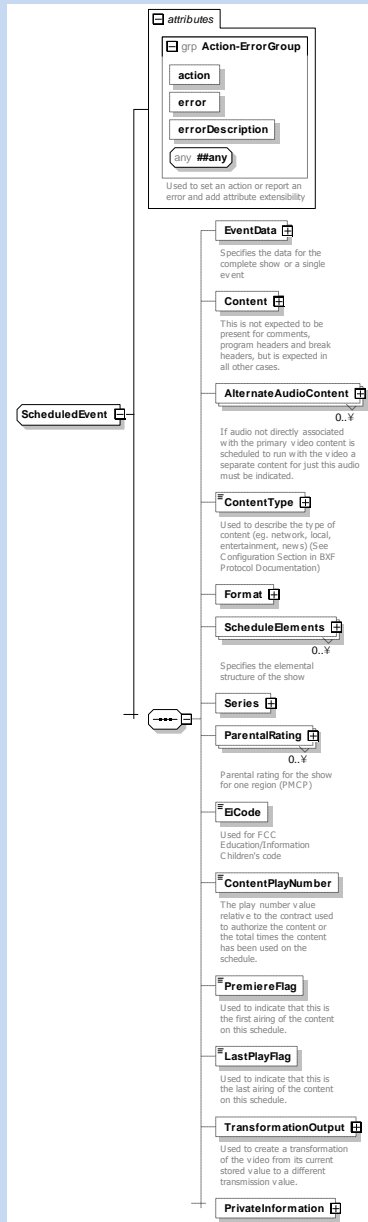
properties	isRef content	0 complex				
children	<a href="#">AsRunEventId</a> <a href="#">Content</a> <a href="#">AsRunDetail</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="BasicAsRun" type="BasicAsRun"/>					

element **Schedule/PrivateInformation**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>

## complexType ScheduledEvent

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [EventData](#) [Content](#) [AlternateAudioContent](#) [ContentType](#) [Format](#) [ScheduleElements](#) [Series](#) [ParentalRating](#) [EiCode](#) [ContentPlayNumber](#) [PremiereFlag](#)



	<a href="#">LastPlayFlag</a> <a href="#">TransformationOutput</a> <a href="#">PrivateInformation</a>					
used by	element complexType	<a href="#">Schedule/ScheduledEvent</a> <a href="#">CompleteAsRun</a>				
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<pre> &lt;xs:complexType name="ScheduledEvent"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="EventData" type="EventData" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Specifies the data for the complete show or a single event&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Content" type="ContentMetaData" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;This is not expected to be present for comments, program headers and break headers, but is expected in all other cases.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="AlternateAudioContent" type="AlternateAudioContent" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;If audio not directly associated with the primary video content is scheduled to run with the video a separate content for just this audio must be indicated.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ContentType" type="BxfText" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Used to describe the type of content (eg. network, local, entertainment, news) (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Format" minOccurs="0"&gt;       &lt;xs:complexType&gt;         &lt;xs:choice&gt;           &lt;xs:element name="Formats" type="Format"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;The definition of the empty structure of a program as used by the traffic system to construct a schedule grid.&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="FormatId" type="Uuid"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;The unique identifier for a format&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;         &lt;/xs:choice&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ScheduleElements" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Specifies the elemental structure of the show&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence&gt;           &lt;xs:element name="EventData" type="EventData" minOccurs="0"&gt; </pre>					

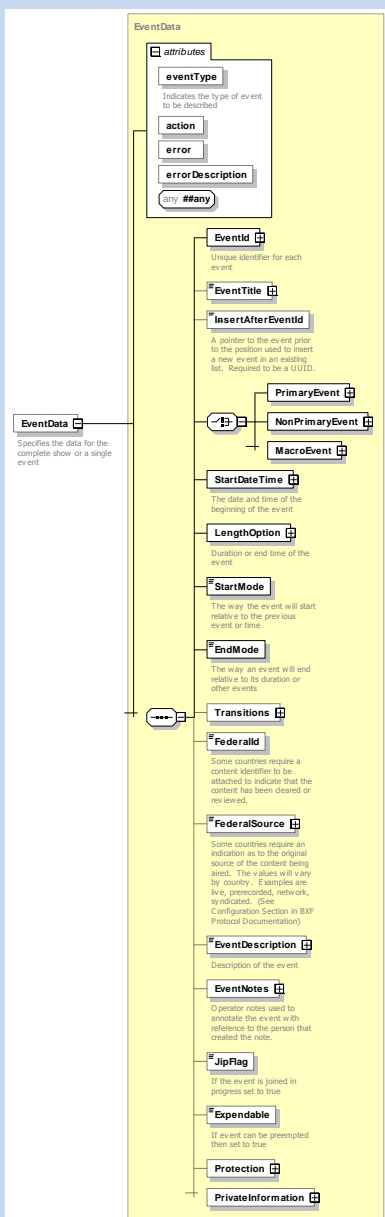
```

<xs:annotation>
  <xs:documentation>Specifies the data for the complete show or a single event</xs:documentation>
</xs:annotation>
</xs:element>
<xs:element name="Content" type="ContentMetaData" minOccurs="0">
  <xs:annotation>
    <xs:documentation>This is not expected to be present for comments, program headers and break headers, but is expected in all other
cases.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="AlternateAudioContent" type="AlternateAudioContent" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>If audio not directly associated with the primary video content is scheduled to run with the video a separate content for just this audio must be
indicated.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="Series" type="Series" minOccurs="0"/>
<xs:element name="ParentalRating" type="BxfParentalRating" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Parental rating for the show for one region (PMCP)</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="EiCode" type="EiCode" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Used for FCC Education/Information Children's code</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="ContentPlayNumber" type="xs:positiveInteger" minOccurs="0">
  <xs:annotation>
    <xs:documentation>The play number value relative to the contract used to authorize the content or the total times the content has been used on the
schedule.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="PremiereFlag" type="xs:boolean" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Used to indicate that this is the first airing of the content on this schedule.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="LastPlayFlag" type="xs:boolean" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Used to indicate that this is the last airing of the content on this schedule.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="TransformationOutput" type="BaseMedia" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Used to create a transformation of the video from its current stored value to a different transmission value.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>
</xs:sequence>
<xs:attributeGroup ref="Action-ErrorGroup"/>

```

## element ScheduledEvent/EventData

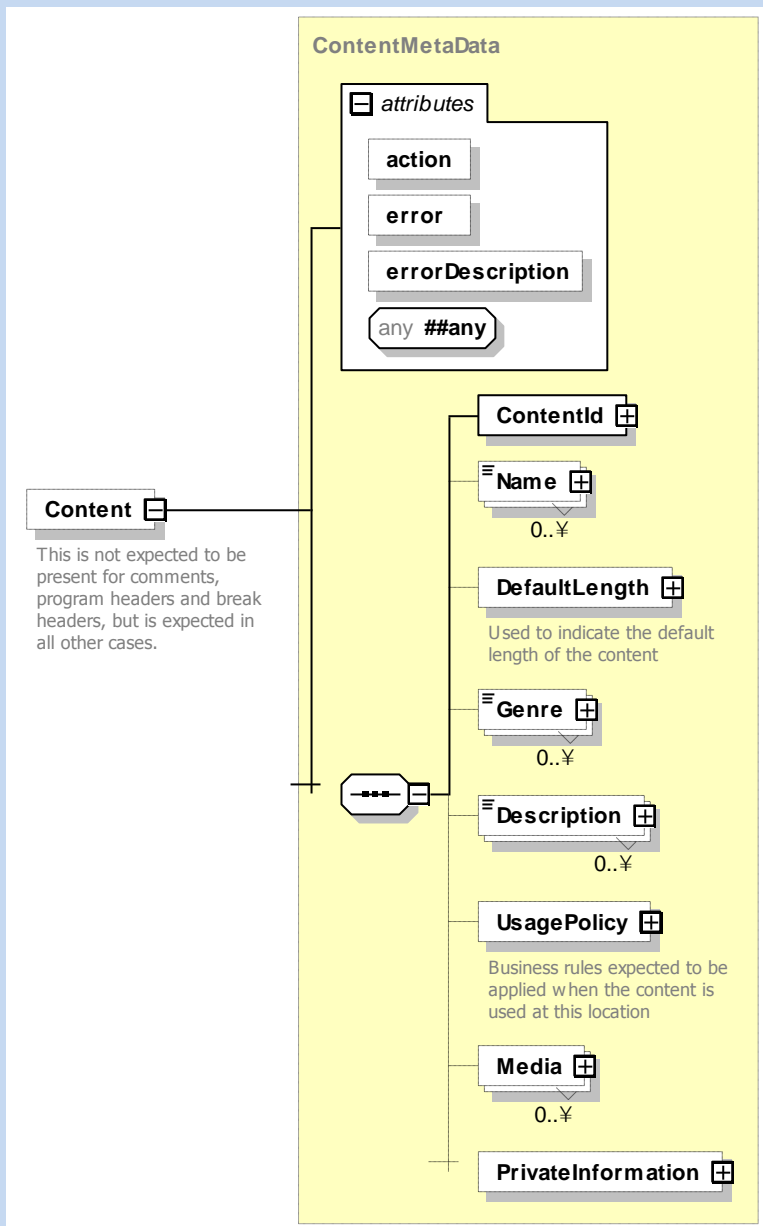
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF						
type	<a href="#">EventData</a>						
properties	isRef	0					
	minOcc	0					
	maxOcc	1					
	content	complex					
children	<a href="#">EventId</a> <a href="#">EventTitle</a> <a href="#">InsertAfterEventId</a> <a href="#">PrimaryEvent</a> <a href="#">NonPrimaryEvent</a> <a href="#">MacroEvent</a> <a href="#">StartDateTime</a> <a href="#">LengthOption</a> <a href="#">StartMode</a> <a href="#">EndMode</a> <a href="#">Transitions</a> <a href="#">FederalId</a> <a href="#">FederalSource</a> <a href="#">EventDescription</a> <a href="#">EventNotes</a> <a href="#">JipFlag</a> <a href="#">Expendable</a> <a href="#">Protection</a> <a href="#">PrivateInformation</a>						
attributes	Name <a href="#">eventType</a>  <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <b>derived by:</b> <b>xs:string</b>  <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use   optional optional optional	Default	Fixed	annotation documentation Indicates the type of event to be described	
annotation	documentation Specifies the data for the complete show or a single event						
source	<xs:element name="EventData" type="EventData" minOccurs="0"> <xs:annotation> <xs:documentation>Specifies the data for the complete show or a single event</xs:documentation> </xs:annotation> </xs:element>						

element **ScheduledEvent/Content**

diagram



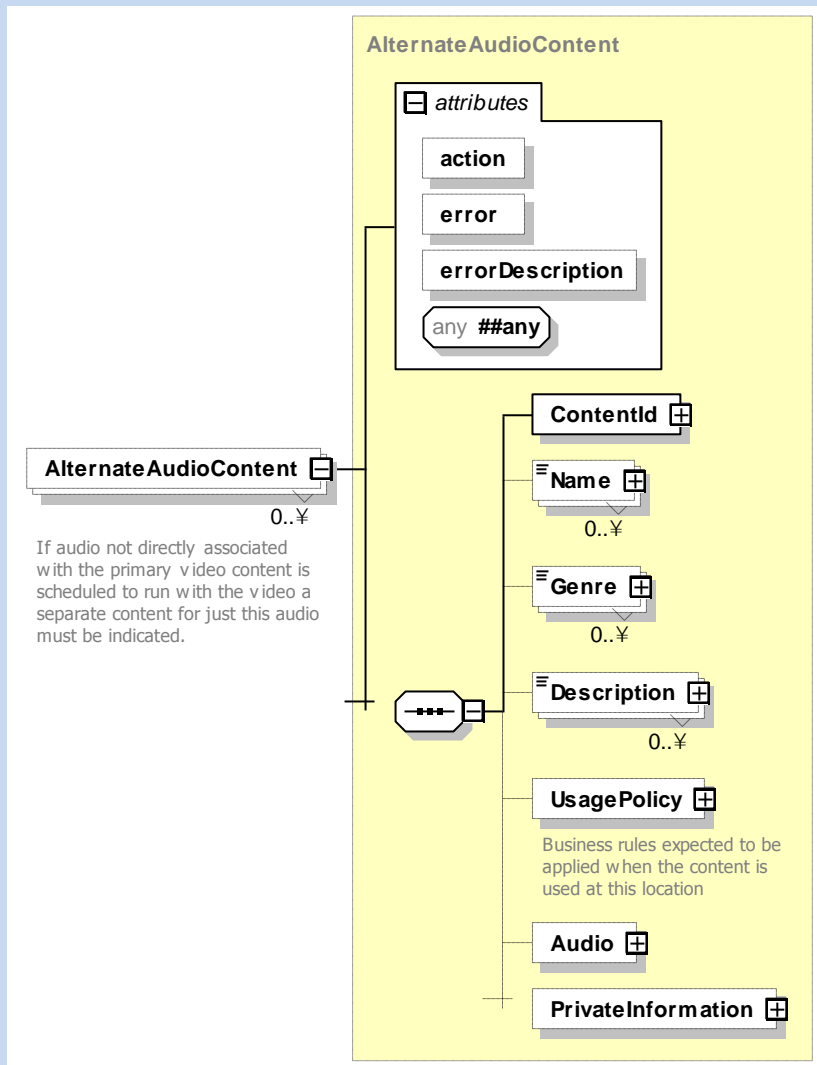
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [ContentMetaData](#)

properties	isRef minOcc maxOcc content	0 0 1 complex				
children	<a href="#">ContentId</a> <a href="#">Name</a> <a href="#">DefaultLength</a> <a href="#">Genre</a> <a href="#">Description</a> <a href="#">UsagePolicy</a> <a href="#">Media</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation This is not expected to be present for comments, program headers and break headers, but is expected in all other cases.					
source	<xs:element name="Content" type="ContentMetaData" minOccurs="0"> <xs:annotation> <xs:documentation>This is not expected to be present for comments, program headers and break headers, but is expected in all other cases.</xs:documentation> </xs:annotation> </xs:element>					

element **ScheduledEvent/AlternateAudioContent**

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">AlternateAudioContent</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>unbounded</td></tr> <tr><td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">ContentId</a> <a href="#">Name</a> <a href="#">Genre</a> <a href="#">Description</a> <a href="#">UsagePolicy</a> <a href="#">Audio</a> <a href="#">PrivateInformation</a>								

attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation If audio not directly associated with the primary video content is scheduled to run with the video a separate content for just this audio must be indicated.					
source	<xs:element name="AlternateAudioContent" type="AlternateAudioContent" minOccurs="0" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>If audio not directly associated with the primary video content is scheduled to run with the video a separate content for just this audio must be indicated.</xs:documentation> </xs:annotation> </xs:element>					

## element ScheduledEvent/ContentType

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name <a href="#">lang</a> <a href="#">size</a> <a href="#">type</a> <a href="#">action</a> <a href="#">error</a>	Type <a href="#">pmcp:languageType</a> <a href="#">xs:positiveInteger</a> <a href="#">xs:string</a> <a href="#">pmcp:actionType</a> <a href="#">BxfError</a>	Use   optional optional	Default	Fixed	annotation



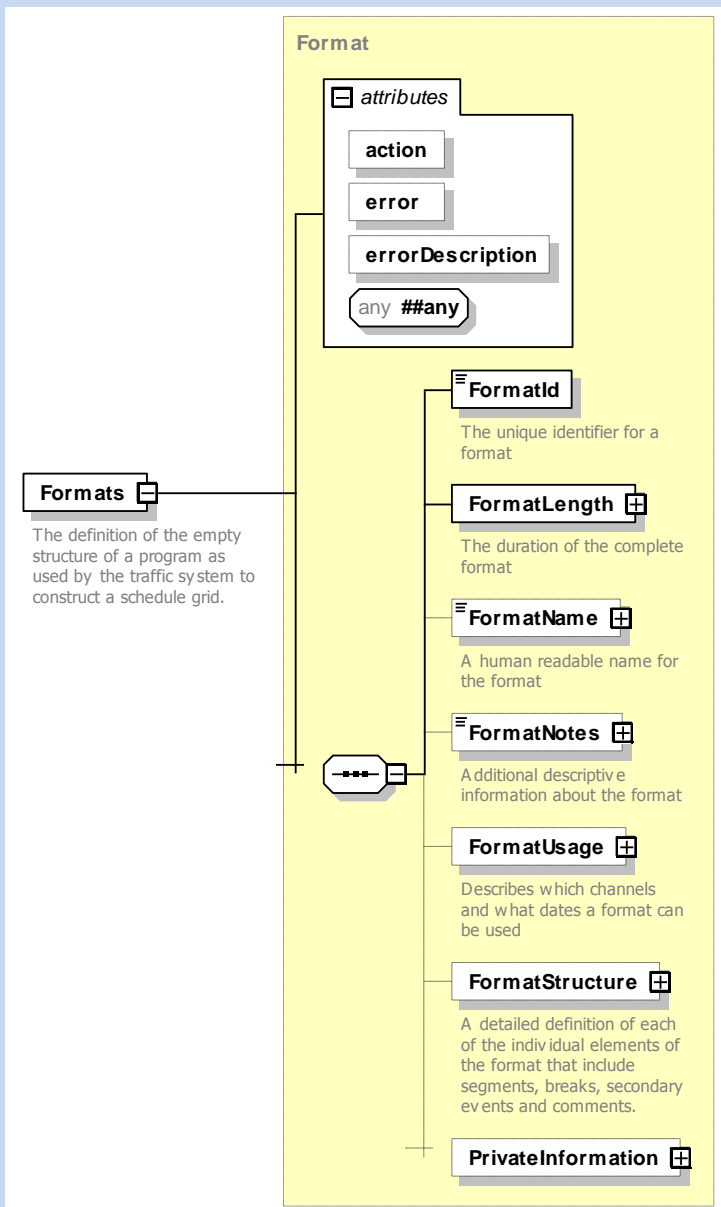
	<a href="#">errorDescription</a> <b>xs:string</b> optional
annotation	documentation Used to describe the type of content (eg. network, local, entertainment, news) (See Configuration Section in BXF Protocol Documentation)
source	<pre>&lt;xs:element name="ContentType" type="BxfText" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to describe the type of content (eg. network, local, entertainment, news) (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element **ScheduledEvent/Format**

diagram	
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">Formats</a> <a href="#">FormatId</a>
source	<pre>&lt;xs:element name="Format" minOccurs="0"&gt;   &lt;xs:complexType&gt;     &lt;xs:choice&gt;       &lt;xs:element name="Formats" type="Format"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The definition of the empty structure of a program as used by the traffic system to construct a schedule grid.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="FormatId" type="Uuid"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The unique identifier for a format&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:choice&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>

# element **ScheduledEvent/Format/Formats**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [Format](#)

properties	isRef content	0 complex				
children	<a href="#">FormatId</a> <a href="#">FormatLength</a> <a href="#">FormatName</a> <a href="#">FormatNotes</a> <a href="#">FormatUsage</a> <a href="#">FormatStructure</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation The definition of the empty structure of a program as used by the traffic system to construct a schedule grid.					
source	<pre>&lt;xs:element name="Formats" type="Format"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The definition of the empty structure of a program as used by the traffic system to construct a schedule grid.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

#### element **ScheduledEvent/Format/FormatId**

diagram	<div><div><div><div><div></div><div>FormatId</div></div></div><div>The unique identifier for a format</div></div></div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">Uuid</a>
properties	isRef 0 content simple
facets	length 45 pattern urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}
annotation	documentation The unique identifier for a format
source	<xs:element name="FormatId" type="Uuid"> <xs:annotation> <xs:documentation>The unique identifier for a format</xs:documentation> </xs:annotation> </xs:element>

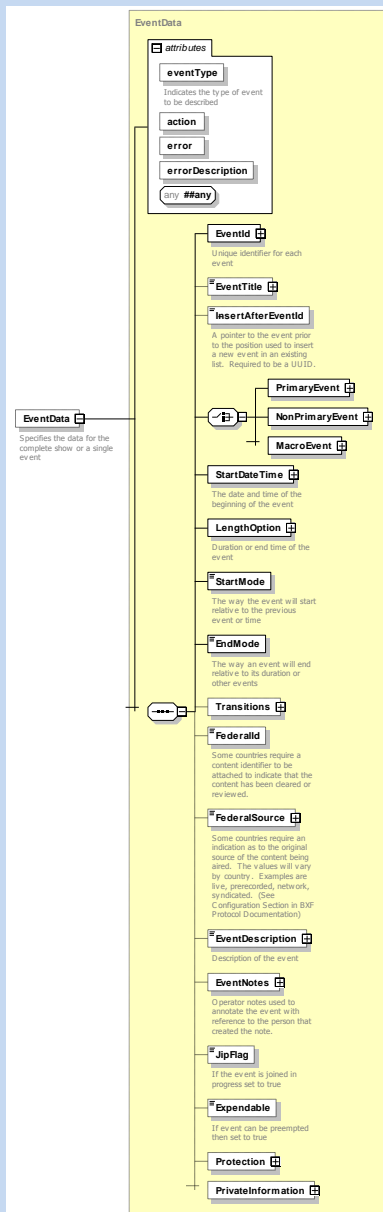
# element ScheduledEvent/ScheduleElements

diagram	<p><b>ScheduleElements</b> 0..1</p> <p>Specifies the elemental structure of the show</p> <p><b>EventData</b> 0..1</p> <p>Specifies the data for the complete show or a single event</p> <p><b>Content</b> 0..1</p> <p>This is not expected to be present for comments, program headers and break headers, but is expected in all other cases.</p> <p><b>AlternateAudioContent</b> 0..1</p> <p>If audio not directly associated with the primary video content is scheduled to run with the video a separate content for just this audio must be indicated.</p> <p><b>PrivateInformation</b> 0..1</p>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 minOcc 0 maxOcc unbounded content complex
children	<a href="#">EventData</a> <a href="#">Content</a> <a href="#">AlternateAudioContent</a> <a href="#">PrivateInformation</a>
annotation	documentation Specifies the elemental structure of the show
source	<pre> &lt;xs:element name="ScheduleElements" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Specifies the elemental structure of the show&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="EventData" type="EventData" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Specifies the data for the complete show or a single event&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Content" type="ContentMetaData" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;This is not expected to be present for comments, program headers and break headers, but is expected in all other cases.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="AlternateAudioContent" type="AlternateAudioContent" minOccurs="0" maxOccurs="unbounded"&gt;         &lt;xs:annotation&gt; </pre>

	<pre>&lt;xs:documentation&gt;If audio not directly associated with the primary video content is scheduled to run with the video a separate content for just this audio must be indicated.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>
--	---

# element **ScheduledEvent/ScheduleElements/EventData**

diagram



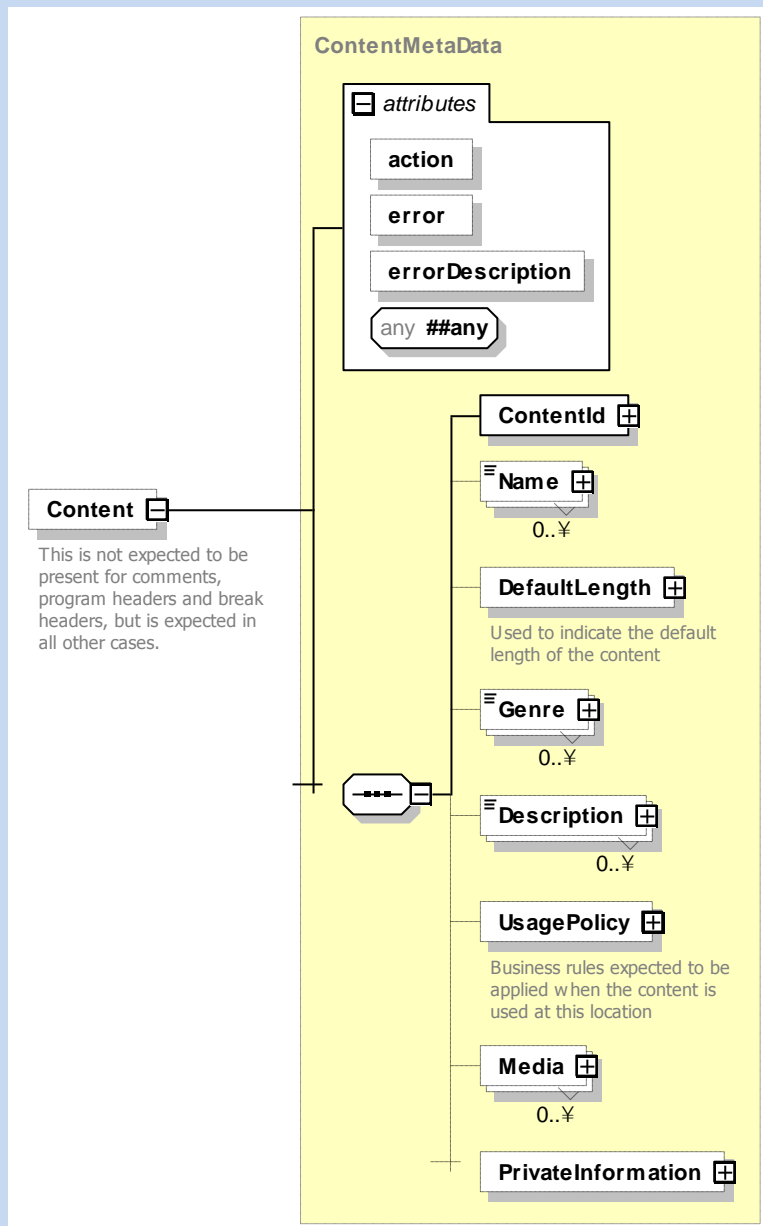
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

type [EventData](#)

properties	isRef minOcc maxOcc content	0 0 1 complex
children	<a href="#">EventId</a> <a href="#">EventTitle</a> <a href="#">InsertAfterEventId</a> <a href="#">PrimaryEvent</a> <a href="#">NonPrimaryEvent</a> <a href="#">MacroEvent</a> <a href="#">StartDateTime</a> <a href="#">LengthOption</a> <a href="#">StartMode</a> <a href="#">EndMode</a> <a href="#">Transitions</a> <a href="#">FederalId</a> <a href="#">FederalSource</a> <a href="#">EventDescription</a> <a href="#">EventNotes</a> <a href="#">JipFlag</a> <a href="#">Expendable</a> <a href="#">Protection</a> <a href="#">PrivateInformation</a>	
attributes	Name <a href="#">eventType</a>  <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type derived by: <b>xs:string</b> <a href="#">pmcp:actionType</a> <b>BxfError</b> <b>xs:string</b>  Use  optional optional optional  Default  Fixed  annotation documentation Indicates the type of event to be described
annotation	documentation Specifies the data for the complete show or a single event	
source	<xs:element name="EventData" type="EventData" minOccurs="0"> <xs:annotation> <xs:documentation>Specifies the data for the complete show or a single event</xs:documentation> </xs:annotation> </xs:element>	

element **ScheduledEvent/ScheduleElements/Content**

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

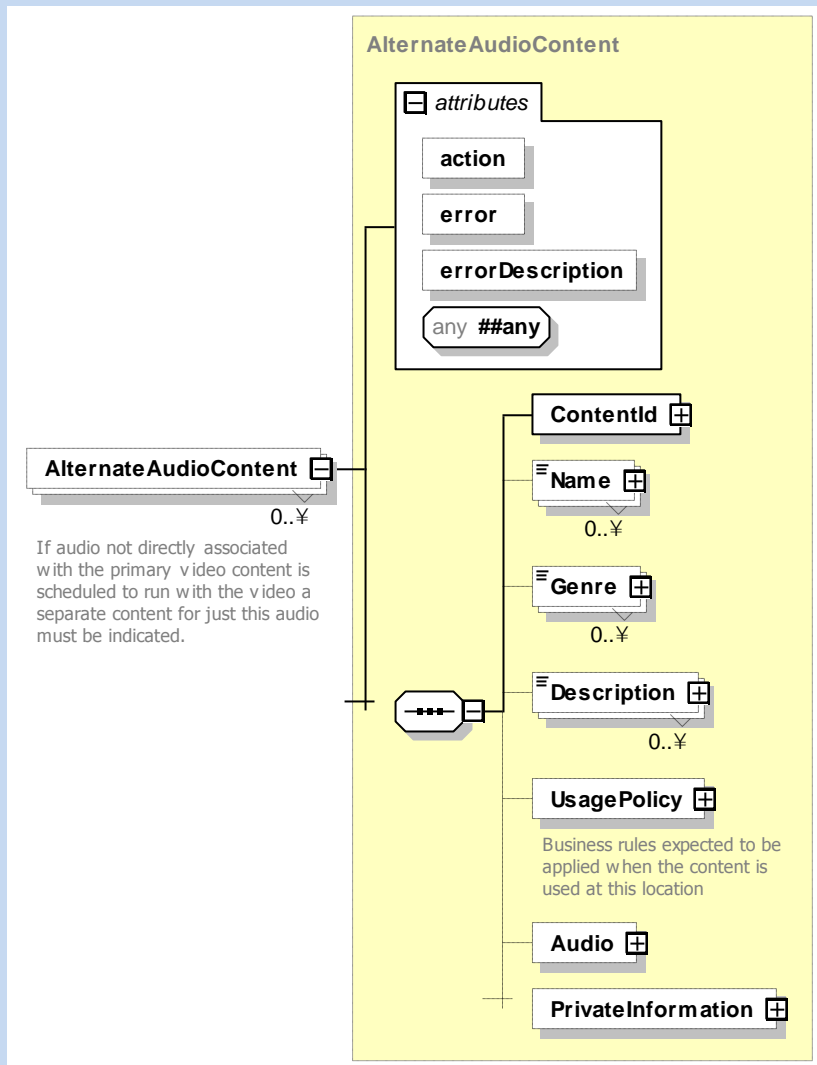
type [ContentMetaData](#)



properties	isRef minOcc maxOcc content	0 0 1 complex				
children	<a href="#">ContentId</a> <a href="#">Name</a> <a href="#">DefaultLength</a> <a href="#">Genre</a> <a href="#">Description</a> <a href="#">UsagePolicy</a> <a href="#">Media</a> <a href="#">PrivateInformation</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation This is not expected to be present for comments, program headers and break headers, but is expected in all other cases.					
source	<pre>&lt;xs:element name="Content" type="ContentMetaData" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;This is not expected to be present for comments, program headers and break headers, but is expected in all other cases.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

element **ScheduledEvent/ScheduleElements/AlternateAudioContent**

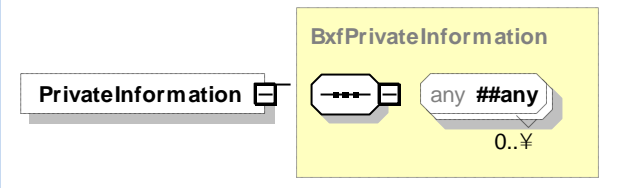
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">AlternateAudioContent</a>								
properties	<table> <tr> <td>isRef</td><td>0</td></tr> <tr> <td>minOcc</td><td>0</td></tr> <tr> <td>maxOcc</td><td>unbounded</td></tr> <tr> <td>content</td><td>complex</td></tr> </table>	isRef	0	minOcc	0	maxOcc	unbounded	content	complex
isRef	0								
minOcc	0								
maxOcc	unbounded								
content	complex								
children	<a href="#">ContentId</a> <a href="#">Name</a> <a href="#">Genre</a> <a href="#">Description</a> <a href="#">UsagePolicy</a> <a href="#">Audio</a> <a href="#">PrivateInformation</a>								

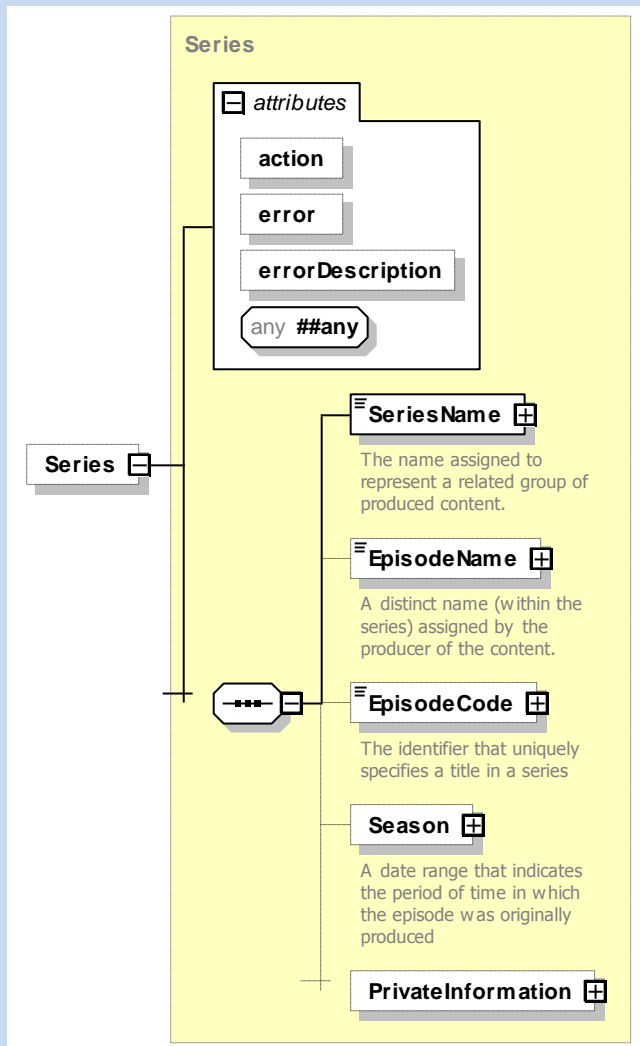
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation If audio not directly associated with the primary video content is scheduled to run with the video a separate content for just this audio must be indicated.					
source	<xs:element name="AlternateAudioContent" type="AlternateAudioContent" minOccurs="0" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>If audio not directly associated with the primary video content is scheduled to run with the video a separate content for just this audio must be indicated.</xs:documentation> </xs:annotation> </xs:element>					

element **ScheduledEvent/ScheduleElements/PrivateInformation**

diagram						
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>					
type	<a href="#">BxfPrivateInformation</a>					
properties	isRef	0	minOcc	0	maxOcc	1
	content	complex				
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>					

# element **ScheduledEvent/Series**

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	<a href="#">Series</a>		
properties	isRef	0	
	minOcc	0	
	maxOcc	1	
	content	complex	
children	<a href="#">SeriesName</a> <a href="#">EpisodeName</a> <a href="#">EpisodeCode</a> <a href="#">Season</a> <a href="#">PrivateInformation</a>		

attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use optional optional optional	Default	Fixed	annotation
source	<xs:element name="Series" type="Series" minOccurs="0"/>					

element **ScheduledEvent/ParentalRating**


diagram						
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>					
type	<a href="#">BxfParentalRating</a>					
properties	isRef	0	minOcc	0	maxOcc	unbounded
	content	complex				

children	<a href="#">Null Rating ContentAdvisory</a>					
attributes	Name <a href="#">region</a>	Type <b>xs:unsignedByte</b>	Use required	Default	Fixed	annotation documentation Rating region, as defined by the ATSC Code Point Registry
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">pmcp:errorType</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation Parental rating for the show for one region (PMCP)					
source	<pre>&lt;xs:element name="ParentalRating" type="BxfParentalRating" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Parental rating for the show for one region (PMCP)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					


#### element **ScheduledEvent/EiCode**

diagram	<div><div><div><div><div></div><div>EiCode</div></div></div><div>Used for FCC Education/Information Children's code</div></div></div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">EiCode</a>
properties	<div><div>isRef</div><div>0</div><div>minOcc</div><div>0</div><div>maxOcc</div><div>1</div><div>content</div><div>simple</div></div>
facets	<div><div>minLength</div><div>7</div><div>maxLength</div><div>9</div><div>pattern</div><div>E-I [0-9]{0,1}[0-9]-[0-9]{0,1}[0-9]</div></div>
annotation	<div><div>documentation</div><div>Used for FCC Education/Information Children's code</div></div>
source	<pre>&lt;xs:element name="EiCode" type="EiCode" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used for FCC Education/Information Children's code&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element ScheduledEvent/ContentPlayNumber

diagram	 <p>The play number value relative to the contract used to authorize the content or the total times the content has been used on the schedule.</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:positiveInteger</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	<p>documentation</p> <p>The play number value relative to the contract used to authorize the content or the total times the content has been used on the schedule.</p>								
source	<pre>&lt;xs:element name="ContentPlayNumber" type="xs:positiveInteger" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The play number value relative to the contract used to authorize the content or the total times the content has been used on the schedule.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

## element ScheduledEvent/PremiereFlag

diagram	 <p>Used to indicate that this is the first airing of the content on this schedule.</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:boolean</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	<p>documentation</p> <p>Used to indicate that this is the first airing of the content on this schedule.</p>								
source	<pre>&lt;xs:element name="PremiereFlag" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to indicate that this is the first airing of the content on this schedule.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

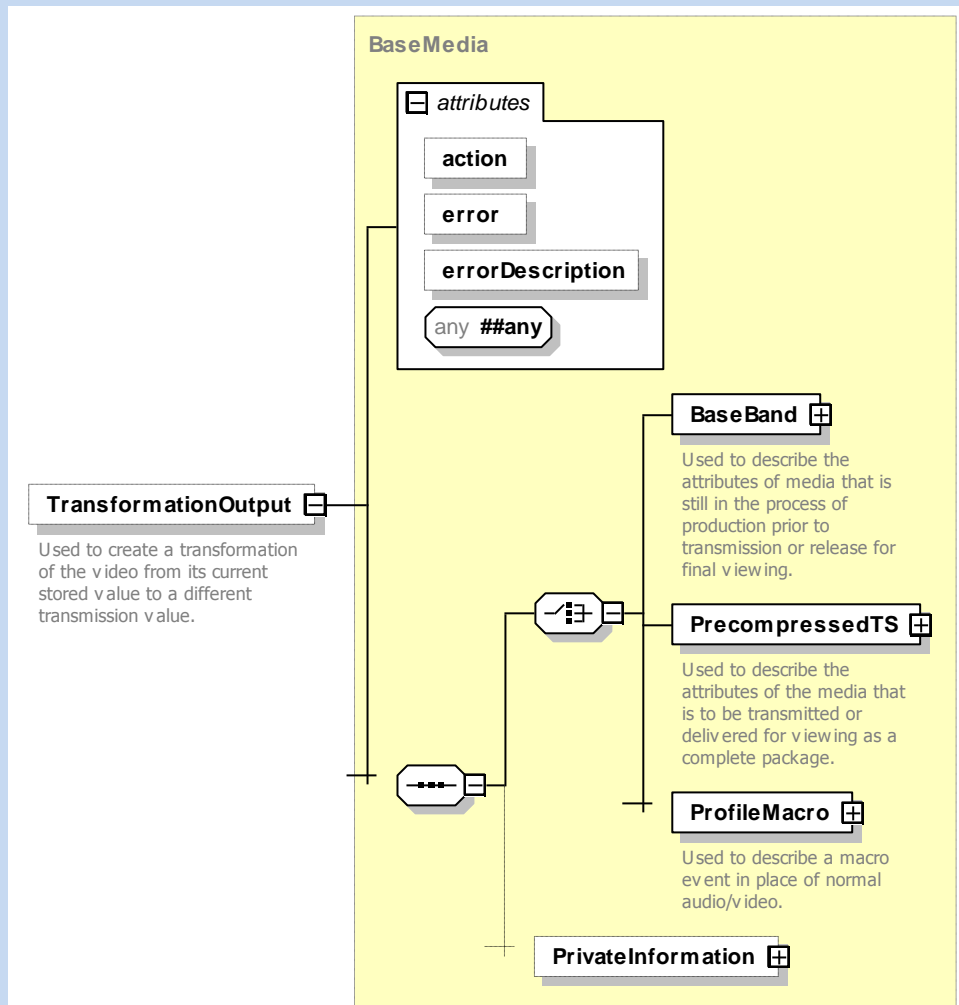
# element **ScheduledEvent/LastPlayFlag**

diagram	<div> <div> <div></div> <div><b>LastPlayFlag</b></div> </div> <div> <p>Used to indicate that this is the last airing of the content on this schedule.</p> </div> </div>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:boolean</b>
properties	<div> <div>isRef</div> <div>0</div> </div> <div> <div>minOcc</div> <div>0</div> </div> <div> <div>maxOcc</div> <div>1</div> </div> <div> <div>content</div> <div>simple</div> </div>
annotation	<div>documentation</div> <div>Used to indicate that this is the last airing of the content on this schedule.</div>
source	<pre> &lt;xs:element name="LastPlayFlag" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to indicate that this is the last airing of the content on this schedule.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>



element **ScheduledEvent/TransformationOutput**

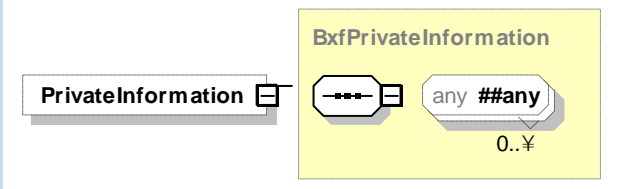
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BaseMedia</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
children	<a href="#">BaseBand</a> <a href="#">PrecompressedTS</a> <a href="#">ProfileMacro</a> <a href="#">PrivateInformation</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			

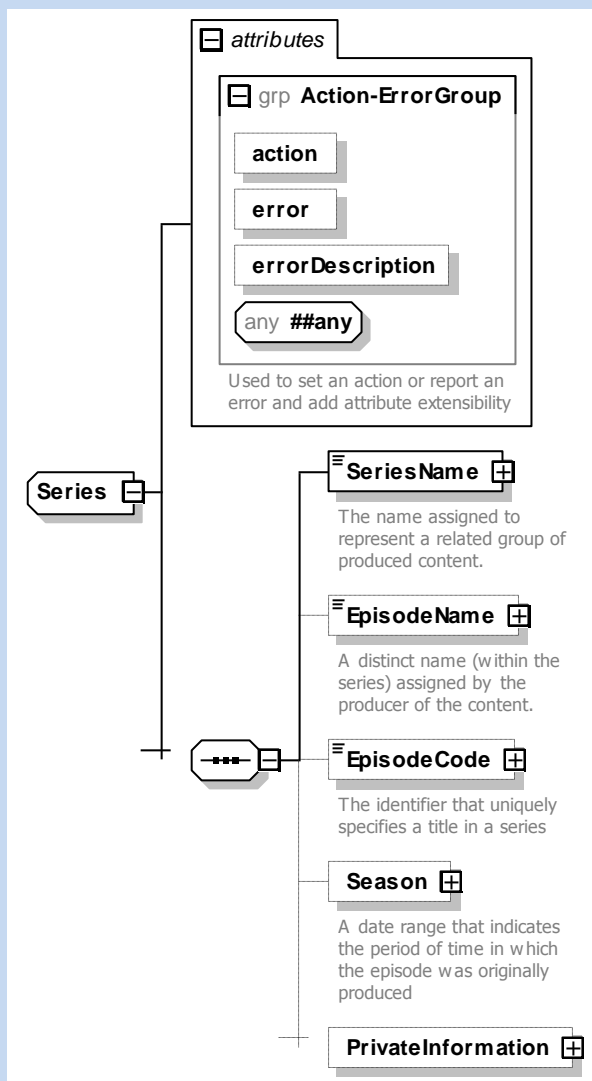
	<a href="#">error</a> <a href="#">errorDescription</a> documentation Used to create a transformation of the video from its current stored value to a different transmission value.	<a href="#">BxfError</a> <b>xs:string</b>	optional optional
annotation			
source	<pre>&lt;xs:element name="TransformationOutput" type="BaseMedia" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to create a transformation of the video from its current stored value to a different transmission value.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>		

element **ScheduledEvent/PrivateInformation**

diagram	 <p>The diagram shows a class-like box labeled 'PrivateInformation' with a small square icon. A line connects it to a yellow box labeled 'BxfPrivateInformation'. Inside the yellow box, there is a multiplicity box containing 'any' and '##any', and a cardinality box below it containing '0..∞'.</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">BxfPrivateInformation</a>								
properties	<table><tr><td>isRef</td><td>0</td></tr><tr><td>minOcc</td><td>0</td></tr><tr><td>maxOcc</td><td>1</td></tr><tr><td>content</td><td>complex</td></tr></table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>								

## complexType Series

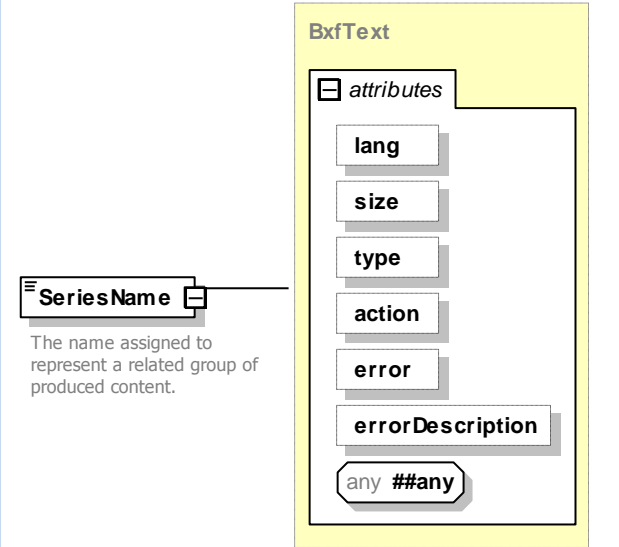
diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
children	<a href="#">SeriesName</a> <a href="#">EpisodeName</a> <a href="#">EpisodeCode</a> <a href="#">Season</a> <a href="#">PrivateInformation</a>					
used by	elements	<a href="#">ProgramContent/Series</a> <a href="#">ScheduledEvent/Series</a>				
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmc:actionType</a> <a href="#">BxfError</a> <a href="#">xs:string</a>	Use optional optional optional	Default	Fixed	annotation

source	<pre> &lt;xs:complexType name="Series"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="SeriesName" type="BxfText"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The name assigned to represent a related group of produced content.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="EpisodeName" type="BxfText" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A distinct name (within the series) assigned by the producer of the content.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="EpisodeCode" type="BxfText" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The identifier that uniquely specifies a title in a series&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="Season" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A date range that indicates the period of time in which the episode was originally produced&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence&gt;           &lt;xs:element name="SeasonName" type="BxfText"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;The name used to reference the season period&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="StartDate" type="xs:date" minOccurs="0"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;Start date of the season&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;           &lt;xs:element name="EndDate" type="xs:date" minOccurs="0"&gt;             &lt;xs:annotation&gt;               &lt;xs:documentation&gt;End date of the season&lt;/xs:documentation&gt;             &lt;/xs:annotation&gt;           &lt;/xs:element&gt;         &lt;/xs:sequence&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--------	--

element **Series/SeriesName**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
annotation	documentation The name assigned to represent a related group of produced content.					
source	<pre> &lt;xs:element name="SeriesName" type="BxfText"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The name assigned to represent a related group of produced content.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

# element **Series/EpisodeName**

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<a href="#">xs:positiveInteger</a>				
	<a href="#">type</a>	<a href="#">xs:string</a>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<a href="#">xs:string</a>	optional			
annotation	documentation A distinct name (within the series) assigned by the producer of the content.					
source	<pre> &lt;xs:element name="EpisodeName" type="BxfText" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A distinct name (within the series) assigned by the producer of the content.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;           </pre>					

# element **Series/EpisodeCode**

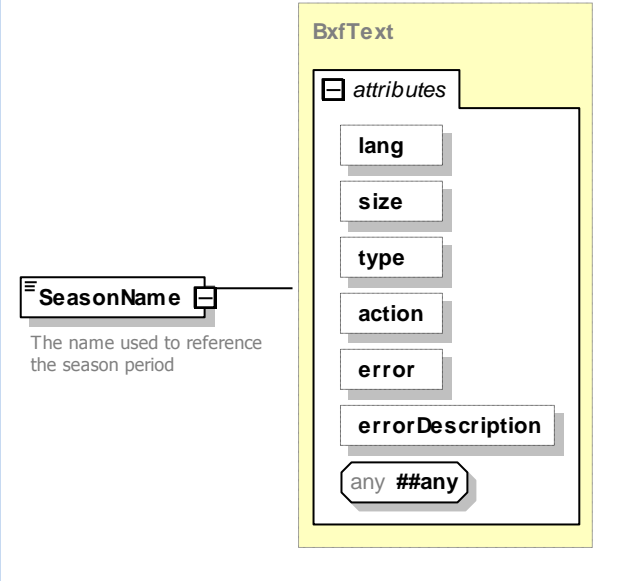
diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	<b>xs:positiveInteger</b>				
	<a href="#">type</a>	<b>xs:string</b>				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation The identifier that uniquely specifies a title in a series					
source	<pre> &lt;xs:element name="EpisodeCode" type="BxfText" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The identifier that uniquely specifies a title in a series&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>					

## element Series/Season

diagram	<p><b>Season</b></p> <p>A date range that indicates the period of time in which the episode was originally produced</p> <p><b>SeasonName</b></p> <p>The name used to reference the season period</p> <p><b>StartDate</b></p> <p>Start date of the season</p> <p><b>EndDate</b></p> <p>End date of the season</p>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	<p>isRef 0</p> <p>minOcc 0</p> <p>maxOcc 1</p> <p>content complex</p>
children	<a href="#">SeasonName</a> <a href="#">StartDate</a> <a href="#">EndDate</a>
annotation	<p>documentation</p> <p>A date range that indicates the period of time in which the episode was originally produced</p>
source	<pre> &lt;xs:element name="Season" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A date range that indicates the period of time in which the episode was originally produced&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="SeasonName" type="BxfText"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The name used to reference the season period&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="StartDate" type="xs:date" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Start date of the season&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="EndDate" type="xs:date" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;End date of the season&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>



## element **Series/Season/SeasonName**


diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfText</a>					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">lang</a>	<a href="#">pmcp:languageType</a>				
	<a href="#">size</a>	xs:positiveInteger				
	<a href="#">type</a>	xs:string				
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	xs:string	optional			
annotation	documentation The name used to reference the season period					
source	<pre>&lt;xs:element name="SeasonName" type="BxfText"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The name used to reference the season period&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

## element **Series/Season/StartDate**

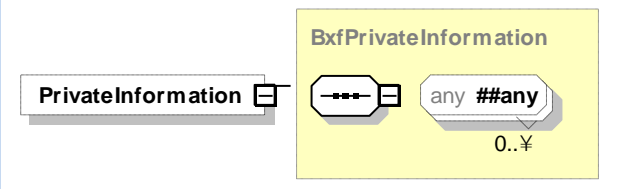
diagram						
---------	---	--	--	--	--	--

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:date</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Start date of the season
source	<pre>&lt;xs:element name="StartDate" type="xs:date" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Start date of the season&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **Series/Season/EndDate**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:date</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation End date of the season
source	<pre>&lt;xs:element name="EndDate" type="xs:date" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;End date of the season&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **Series/PrivateInformation**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#"><u>BxfPrivateInformation</u></a>

properties	<div>isRef0</div> <div>minOcc0</div> <div>maxOcc1</div> <div>contentcomplex</div>
source	<div>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</div>

complexType TSAudio

diagram	<div></div>
namespace	<div>http://smpte-ra.org/schemas/2021/2008/BXF</div>
children	<div><a href="#">Null</a> <a href="#">DigitalAudio</a></div>
used by	<div>element <a href="#">BaseMedia/PrecompressedTS/TSAudio</a></div>
annotation	<div>documentation Enumerates the parameters of digital audio in a transport stream</div>
source	<div>&lt;xs:complexType name="TSAudio"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumerates the parameters of digital audio in a transport stream&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:choice&gt;     &lt;xs:element name="Null"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;No audio is associated to the media&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="DigitalAudio" type="DigitalAudio" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;/xs:sequence&gt;   &lt;/xs:choice&gt; &lt;/xs:complexType&gt;</div>

element TSAudio/Null

diagram	<div></div>
namespace	<div>http://smpte-ra.org/schemas/2021/2008/BXF</div>

properties	isRef0 contentcomplex
annotation	documentation No audio is associated to the media
source	<xs:element name="Null"> <xs:annotation> <xs:documentation>No audio is associated to the media</xs:documentation> </xs:annotation> <xs:complexType/> </xs:element>

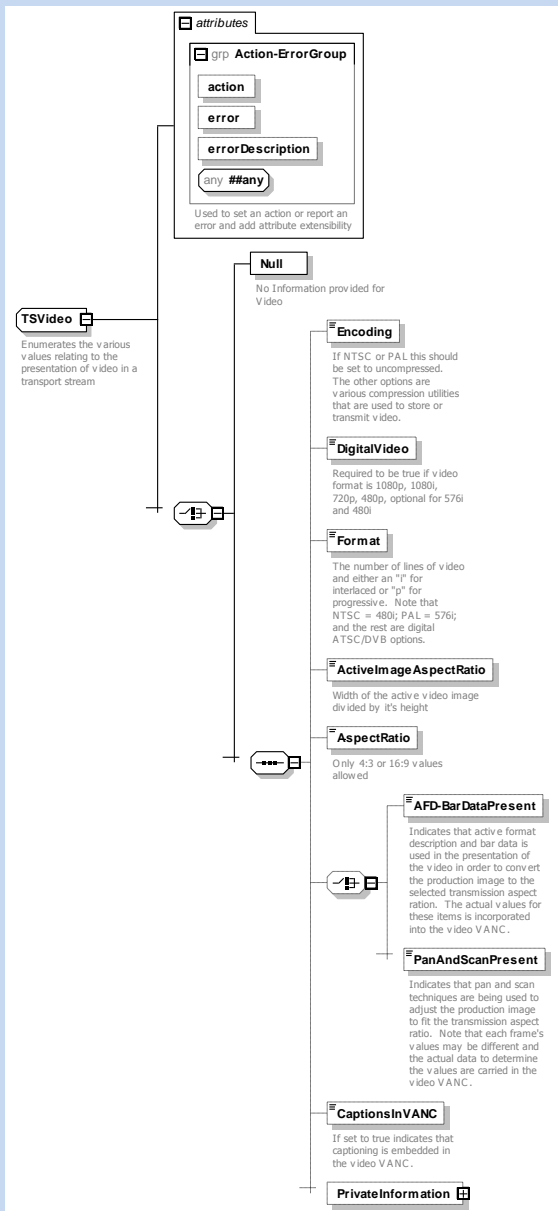
element **TSAudio/DigitalAudio**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">DigitalAudio</a>
properties	isRef0 minOcc0 maxOccunbounded contentcomplex

children	<a href="#">Ac3Audio</a> <a href="#">DEAudio</a> <a href="#">MPEGAACAudio</a> <a href="#">MPEGLayerIIAudio</a> <a href="#">PCMAudio</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">audioReference</a>	<b>xs:positiveInteger</b>				documentation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			Used to reference specific channel or channels for transitions
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
<a href="#">errorDescription</a>	<b>xs:string</b>	optional				
source	<xs:element name="DigitalAudio" type="DigitalAudio" minOccurs="0" maxOccurs="unbounded"/>					

# complexType TSVideo

diagram



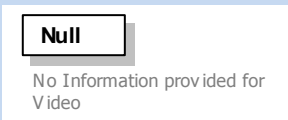
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [Null](#) [Encoding](#) [DigitalVideo](#) [Format](#) [ActiveImageAspectRatio](#) [AspectRatio](#) [AFD-BarDataPresent](#) [PanAndScanPresent](#) [CaptionsInVANC](#) [PrivateInformation](#)

used by	element <a href="#">BaseMedia/PrecompressedTS/TSVideo</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Enumerates the various values relating to the presentation of video in a transport stream					
source	<pre> &lt;xs:complexType name="TSVideo"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumerates the various values relating to the presentation of video in a transport stream&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:choice&gt;     &lt;xs:element name="Null"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;No Information provided for Video&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Encoding" type="TSVideoEncodingType" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;If NTSC or PAL this should be set to uncompressed. The other options are various compression utilities that are used to store or transmit video.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="DigitalVideo" type="xs:boolean" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Required to be true if video format is 1080p, 1080i, 720p, 480p, optional for 576i and 480i&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Format" type="VideoFormatType" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The number of lines of video and either an "i" for interlaced or "p" for progressive. Note that NTSC = 480i; PAL = 576i; and the rest are digital ATSC/DVB options.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="ActiveImageAspectRatio" type="xs:float" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Width of the active video image divided by it's height&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="AspectRatio" type="AspectRatioType" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Only 4:3 or 16:9 values allowed&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:choice minOccurs="0"&gt;         &lt;xs:element name="AFD-BarDataPresent" type="xs:boolean" minOccurs="0"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Indicates that active format description and bar data is used in the presentation of the video in order to convert the production image to the selected transmission aspect ration. The actual values for these items is incorporated into the video VANC.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:element&gt;         &lt;xs:element name="PanAndScanPresent" type="xs:boolean" minOccurs="0"&gt; </pre>					

	<pre> &lt;xs:annotation&gt;   &lt;xs:documentation&gt;Indicates that pan and scan techniques are being used to adjust the production image to fit the transmission aspect ratio. Note that each   frame's values may be different and the actual data to determine the values are carried in the video VANC.&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;/xs:choice&gt; &lt;xs:element name="CaptionsInVANC" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If set to true indicates that captioning is embedded in the video VANC.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;/xs:choice&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	---

#### element **TSVideo/Null**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 content complex
annotation	documentation No Information provided for Video
source	<pre> &lt;xs:element name="Null"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;No Information provided for Video&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType/&gt; &lt;/xs:element&gt; </pre>

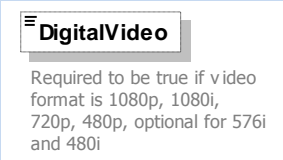
#### element **TSVideo/Encoding**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">TSVideoEncodingType</a>

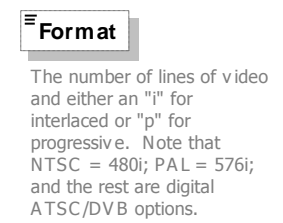


properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration MPEG-2 enumeration MPEG-4 AVC enumeration SMPTE VC-1
annotation	documentation If NTSC or PAL this should be set to uncompressed. The other options are various compression utilities that are used to store or transmit video.
source	<pre>&lt;xs:element name="Encoding" type="TSVideoEncodingType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If NTSC or PAL this should be set to uncompressed. The other options are various compression utilities that are used to store or transmit video.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### element TSVideo/DigitalVideo

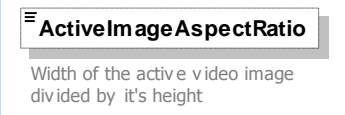
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	xs:boolean
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Required to be true if video format is 1080p, 1080i, 720p, 480p, optional for 576i and 480i
source	<pre>&lt;xs:element name="DigitalVideo" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required to be true if video format is 1080p, 1080i, 720p, 480p, optional for 576i and 480i&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### element TSVideo/Format

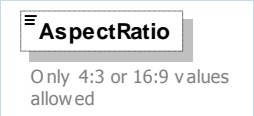
diagram	
---------	--

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">VideoFormatType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration 1080p enumeration 1080i enumeration 720p enumeration 576i enumeration 480p enumeration 480i
annotation	documentation The number of lines of video and either an "i" for interlaced or "p" for progressive. Note that NTSC = 480i; PAL = 576i; and the rest are digital ATSC/DVB options.
source	<pre>&lt;xs:element name="Format" type="VideoFormatType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The number of lines of video and either an "i" for interlaced or "p" for progressive. Note that NTSC = 480i; PAL = 576i; and the rest are digital ATSC/DVB options.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>


#### element TSVideo/ActiveImageAspectRatio

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:float</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Width of the active video image divided by it's height
source	<pre>&lt;xs:element name="ActiveImageAspectRatio" type="xs:float" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Width of the active video image divided by it's height&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element TSVideo/AspectRatio


diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">AspectRatioType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration 16:9 enumeration 4:3
annotation	documentation Only 4:3 or 16:9 values allowed
source	<pre>&lt;xs:element name="AspectRatio" type="AspectRatioType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Only 4:3 or 16:9 values allowed&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element TSVideo/AFD-BarDataPresent


diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:boolean</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Indicates that active format description and bar data is used in the presentation of the video in order to convert the production image to the selected transmission aspect ration. The actual values for these items is incorporated into the video VANC.
source	<pre>&lt;xs:element name="AFD-BarDataPresent" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates that active format description and bar data is used in the presentation of the video in order to convert the production image to the selected transmission aspect ration. The actual values for these items is incorporated into the video VANC.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

	<code>&lt;/xs:annotation&gt;</code> <code>&lt;/xs:element&gt;</code>
--	---

#### element **TSVideo/PanAndScanPresent**

diagram	 <p><b>PanAndScanPresent</b></p> <p>Indicates that pan and scan techniques are being used to adjust the production image to fit the transmission aspect ratio. Note that each frame's v values may be different and the actual data to determine the v values are carried in the video VANC.</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:boolean</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	<p>documentation</p> <p>Indicates that pan and scan techniques are being used to adjust the production image to fit the transmission aspect ratio. Note that each frame's values may be different and the actual data to determine the values are carried in the video VANC.</p>								
source	<pre>&lt;xs:element name="PanAndScanPresent" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates that pan and scan techniques are being used to adjust the production image to fit the transmission aspect ratio. Note that each frame's values may be different and the actual data to determine the values are carried in the video VANC.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

#### element **TSVideo/CaptionsInVANC**

diagram	 <p><b>CaptionsInVANC</b></p> <p>If set to true indicates that captioning is embedded in the video VANC.</p>								
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:boolean</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	<p>documentation</p> <p>If set to true indicates that captioning is embedded in the video VANC.</p>								

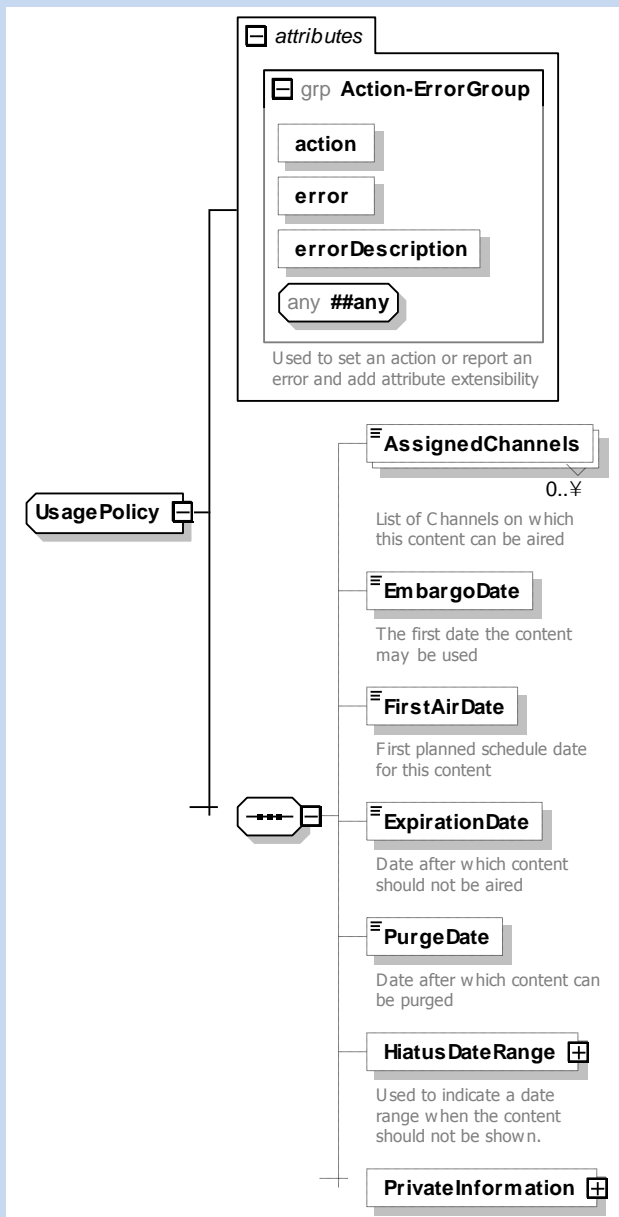
source	<pre>&lt;xs:element name="CaptionsInVANC" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If set to true indicates that captioning is embedded in the video VANC.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>
--------	---

element **TSVideo/PrivateInformation**

diagram	<p>The diagram shows a class-like box labeled 'PrivateInformation' with a small square icon on its right side. A line connects this box to a yellow rectangular box labeled 'BxfPrivateInformation'. Inside the yellow box, there is a UML multiplicity constraint: a box containing 'any' and '##any' with a range '0..1' below it.</p>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
source	<pre>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</pre>

# complexType UsagePolicy

diagram

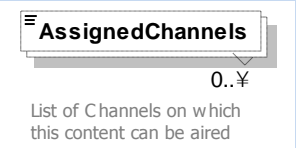


namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

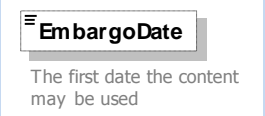
children [AssignedChannels](#) [EmbargoDate](#) [FirstAirDate](#) [ExpirationDate](#) [PurgeDate](#) [HiatusDateRange](#) [PrivateInformation](#)

used by	<a href="#">AlternateAudioContent/UsagePolicy</a> <a href="#">ContentMetaData/UsagePolicy</a> <a href="#">ContentTransfer/Source/UsagePolicy</a> <a href="#">ContentTransfer/Destination/UsagePolicy</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
source	<pre> &lt;xs:complexType name="UsagePolicy"&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="AssignedChannels" type="BxfShortName" minOccurs="0" maxOccurs="unbounded"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;List of Channels on which this content can be aired&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="EmbargoDate" type="xs:dateTime" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The first date the content may be used&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="FirstAirDate" type="xs:dateTime" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;First planned schedule date for this content&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="ExpirationDate" type="xs:dateTime" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Date after which content should not be aired&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PurgeDate" type="xs:dateTime" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Date after which content can be purged&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="HiatusDateRange" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Used to indicate a date range when the content should not be shown.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:complexType&gt;         &lt;xs:sequence&gt;           &lt;xs:element name="HiatusStartDate" type="xs:dateTime"/&gt;           &lt;xs:element name="HiatusEndDate" type="xs:dateTime" minOccurs="0"/&gt;         &lt;/xs:sequence&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;   &lt;/xs:sequence&gt;   &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>					

## element UsagePolicy/AssignedChannels

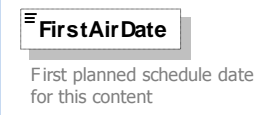
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfShortName</a>
properties	isRef 0 minOcc 0 maxOcc unbounded content simple
facets	maxLength 7
annotation	documentation List of Channels on which this content can be aired
source	<pre>&lt;xs:element name="AssignedChannels" type="BxfShortName" minOccurs="0" maxOccurs="unbounded"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;List of Channels on which this content can be aired&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element UsagePolicy/EmbargoDate

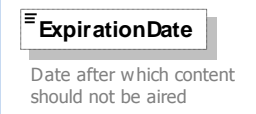
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:dateTime</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation The first date the content may be used
source	<pre>&lt;xs:element name="EmbargoDate" type="xs:dateTime" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The first date the content may be used&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>



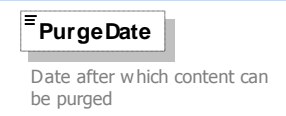
## element UsagePolicy/FirstAirDate

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:dateTime</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation First planned schedule date for this content
source	<pre>&lt;xs:element name="FirstAirDate" type="xs:dateTime" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;First planned schedule date for this content&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

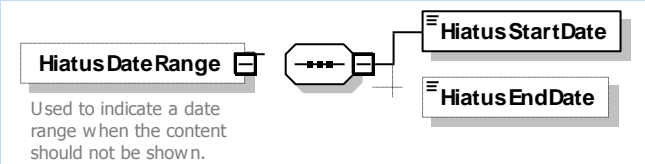
## element UsagePolicy/ExpirationDate

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:dateTime</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Date after which content should not be aired
source	<pre>&lt;xs:element name="ExpirationDate" type="xs:dateTime" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date after which content should not be aired&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>


## element UsagePolicy/PurgeDate

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	xs:dateTime
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Date after which content can be purged
source	<pre>&lt;xs:element name="PurgeDate" type="xs:dateTime" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Date after which content can be purged&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

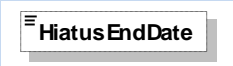
## element UsagePolicy/HiatusDateRange

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	<a href="#">HiatusStartDate</a> <a href="#">HiatusEndDate</a>
annotation	documentation Used to indicate a date range when the content should not be shown.
source	<pre>&lt;xs:element name="HiatusDateRange" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to indicate a date range when the content should not be shown.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="HiatusStartDate" type="xs:dateTime"/&gt;       &lt;xs:element name="HiatusEndDate" type="xs:dateTime" minOccurs="0"/&gt;     &lt;/xs:sequence&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>

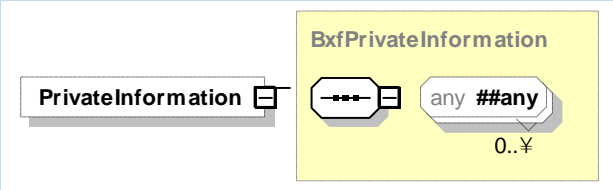
### element UsagePolicy/HiatusDateRange/HiatusStartDate

diagram	 A diagram showing a rectangular box labeled "HiatusStartDate" with a small icon of three horizontal lines to its left.
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:dateTime</b>
properties	isRef 0 content simple
source	<code>&lt;xs:element name="HiatusStartDate" type="xs:dateTime"/&gt;</code>

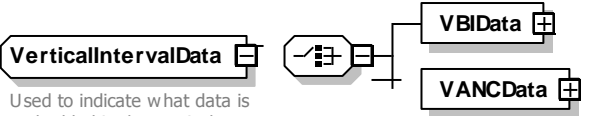
### element UsagePolicy/HiatusDateRange/HiatusEndDate

diagram	 A diagram showing a rectangular box labeled "HiatusEndDate" with a small icon of three horizontal lines to its left.
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:dateTime</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
source	<code>&lt;xs:element name="HiatusEndDate" type="xs:dateTime" minOccurs="0"/&gt;</code>

### element UsagePolicy/PrivateInformation

diagram	 A diagram showing a rectangular box labeled "PrivateInformation" with a small icon of three horizontal lines to its left. To its right is a yellow box labeled "BxfPrivateInformation" containing two ovals: one labeled "any" with a small icon of three horizontal lines to its left, and another labeled "##any" with a small icon of three horizontal lines to its left. Below the "##any" oval is the text "0..¥".
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfPrivateInformation</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex
source	<code>&lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt;</code>

## complexType VerticalIntervalData

diagram	 <p>Used to indicate what data is embedded in the vertical interval of the video image</p> <p>See SMPTE 291M for appropriate values for attributes.</p>
namespace	<a href="http://smpte-ra.org/schemas/2021/2008/BXF">http://smpte-ra.org/schemas/2021/2008/BXF</a>
children	<a href="#">VBIData</a> <a href="#">VANCData</a>
used by	element <a href="#">BaseMedia/BaseBand/VerticalIntervalData</a>
annotation	<p>documentation</p> <p>Used to indicate what data is embedded in the vertical interval of the video image</p>
source	<pre> &lt;xs:complexType name="VerticalIntervalData"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to indicate what data is embedded in the vertical interval of the video image&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:choice&gt;     &lt;xs:element name="VBIData"&gt;       &lt;xs:complexType&gt;         &lt;xs:attribute name="fieldPolarity"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Select either Top or Bottom&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:string"&gt;               &lt;xs:enumeration value="Top"/&gt;               &lt;xs:enumeration value="Bottom"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:attribute&gt;         &lt;xs:attribute name="lineOffSet"&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:integer"&gt;               &lt;xs:minInclusive value="6"/&gt;               &lt;xs:maxInclusive value="22"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:attribute&gt;         &lt;xs:attribute name="waveForm"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;For AMOL and TVGuide reference CEA-2020; for VITC and VITS reference SMPTE RP164.&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;           &lt;xs:simpleType&gt;             &lt;xs:restriction base="xs:string"&gt;               &lt;xs:enumeration value="AMOL"/&gt;               &lt;xs:enumeration value="TVGuide"/&gt;               &lt;xs:enumeration value="VITC"/&gt;               &lt;xs:enumeration value="VITS"/&gt;             &lt;/xs:restriction&gt;           &lt;/xs:simpleType&gt;         &lt;/xs:attribute&gt;       &lt;/xs:complexType&gt;     &lt;/xs:element&gt;   &lt;/xs:choice&gt; &lt;/xs:complexType&gt; </pre>

	<pre>&lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;xs:element name="VANCDData"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;See SMPTE 291M for appropriate values for attributes.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:attribute name="did" type="xs:unsignedByte"/&gt;     &lt;xs:attribute name="sdid" type="xs:unsignedByte"/&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; &lt;/xs:choice&gt; &lt;/xs:complexType&gt;</pre>
--	--

element VerticalIntervalData/VBIDData

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
properties	isRef	0				
	content	complex				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">fieldPolarity</a>	derived by: xs:string				documentation Select either Top or Bottom
	<a href="#">lineOffSet</a>	derived by: xs:integer				
	<a href="#">waveForm</a>	derived by: xs:string				documentation For AMOL and TVGuide reference CEA-2020; for VITC and VITS reference SMPTE RP164.
source	<pre>&lt;xs:element name="VBIDData"&gt;   &lt;xs:complexType&gt;</pre>					

	<pre> &lt;xs:attribute name="fieldPolarity"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Select either Top or Bottom&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Top"/&gt;       &lt;xs:enumeration value="Bottom"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="lineOffSet"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:integer"&gt;       &lt;xs:minInclusive value="6"/&gt;       &lt;xs:maxInclusive value="22"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;xs:attribute name="waveForm"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;For AMOL and TVGuide reference CEA-2020; for VITC and VITS reference SMPTE RP164.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="AMOL"/&gt;       &lt;xs:enumeration value="TVGuide"/&gt;       &lt;xs:enumeration value="VITC"/&gt;       &lt;xs:enumeration value="VITS"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>
--	---

#### attribute VerticalIntervalData/VBIDData/@fieldPolarity

type	restriction of <b>xs:string</b>
properties	isRef 0
facets	enumeration Top enumeration Bottom
annotation	documentation Select either Top or Bottom
source	<pre> &lt;xs:attribute name="fieldPolarity"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Select either Top or Bottom&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="Top"/&gt;       &lt;xs:enumeration value="Bottom"/&gt;     &lt;/xs:restriction&gt; </pre>

	<pre> &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>
--	---

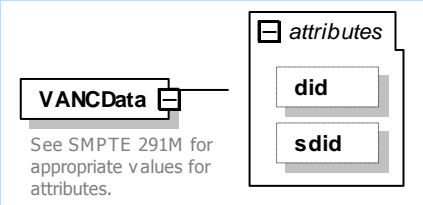
#### attribute VerticalIntervalData/VBIData/@lineOffSet

type	restriction of <b>xs:integer</b>
properties	isRef 0
facets	minInclusive 6 maxInclusive 22
source	<pre> &lt;xs:attribute name="lineOffSet"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:integer"&gt;       &lt;xs:minInclusive value="6"/&gt;       &lt;xs:maxInclusive value="22"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

#### attribute VerticalIntervalData/VBIData/@waveForm

type	restriction of <b>xs:string</b>
properties	isRef 0
facets	enumeration AMOL enumeration TVGuide enumeration VITC enumeration VITS
annotation	documentation For AMOL and TVGuide reference CEA-2020; for VITC and VITS reference SMPTE RP164.
source	<pre> &lt;xs:attribute name="waveForm"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;For AMOL and TVGuide reference CEA-2020; for VITC and VITS reference SMPTE RP164.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:enumeration value="AMOL"/&gt;       &lt;xs:enumeration value="TVGuide"/&gt;       &lt;xs:enumeration value="VITC"/&gt;       &lt;xs:enumeration value="VITS"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

## element VerticalIntervalData/VANCDData

diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
properties	isRef	0	content	complex		
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">did</a>	xs:unsignedByte				
	<a href="#">sdid</a>	xs:unsignedByte				
annotation	documentation See SMPTE 291M for appropriate values for attributes.					
source	<pre>&lt;xs:element name="VANCDData"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;See SMPTE 291M for appropriate values for attributes.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:attribute name="did" type="xs:unsignedByte"/&gt;     &lt;xs:attribute name="sdid" type="xs:unsignedByte"/&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt;</pre>					

## attribute VerticalIntervalData/VANCDData/@did

type	xs:unsignedByte
properties	isRef 0
source	<pre>&lt;xs:attribute name="did" type="xs:unsignedByte"/&gt;</pre>

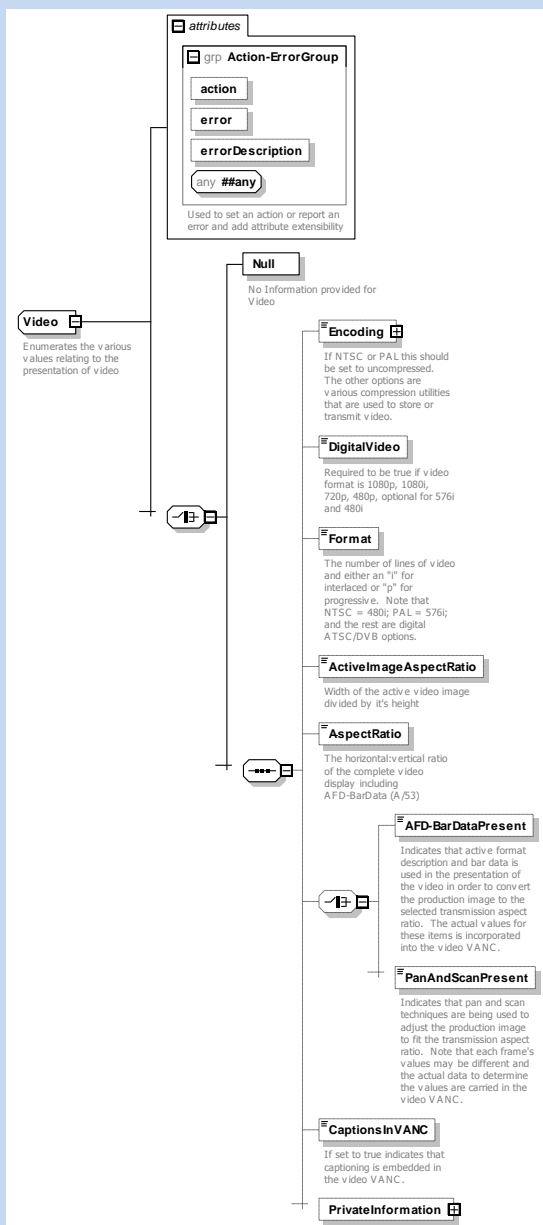
## attribute VerticalIntervalData/VANCDData/@sdid

type	xs:unsignedByte
properties	isRef 0
source	<pre>&lt;xs:attribute name="sdid" type="xs:unsignedByte"/&gt;</pre>



# complexType Video

diagram



namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [Null](#) [Encoding](#) [DigitalVideo](#) [Format](#) [ActiveImageAspectRatio](#) [AspectRatio](#) [AFD-BarDataPresent](#) [PanAndScanPresent](#) [CaptionsInVANC](#) [PrivateInformation](#)

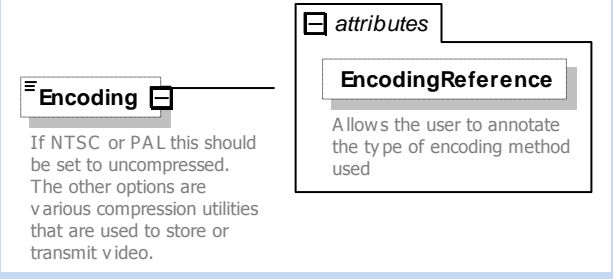
used by	element <a href="#">BaseMedia/BaseBand/Video</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Enumerates the various values relating to the presentation of video					
source	<pre> &lt;xs:complexType name="Video"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumerates the various values relating to the presentation of video&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:choice&gt;     &lt;xs:element name="Null"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;No Information provided for Video&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:sequence&gt;       &lt;xs:element name="Encoding" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;If NTSC or PAL this should be set to uncompressed. The other options are various compression utilities that are used to store or transmit video.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;         &lt;xs:complexType&gt;           &lt;xs:simpleContent&gt;             &lt;xs:extension base="VideoEncodingType"&gt;               &lt;xs:attribute name="EncodingReference" type="xs:string"&gt;                 &lt;xs:annotation&gt;                   &lt;xs:documentation&gt;Allows the user to annotate the type of encoding method used&lt;/xs:documentation&gt;                 &lt;/xs:annotation&gt;               &lt;/xs:attribute&gt;             &lt;/xs:extension&gt;           &lt;/xs:simpleContent&gt;         &lt;/xs:complexType&gt;       &lt;/xs:element&gt;       &lt;xs:element name="DigitalVideo" type="xs:boolean" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Required to be true if video format is 1080p, 1080i, 720p, 480p, optional for 576i and 480i&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="Format" type="VideoFormatType" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;The number of lines of video and either an "i" for interlaced or "p" for progressive. Note that NTSC = 480i; PAL = 576i; and the rest are digital ATSC/DVB options.&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="ActiveImageAspectRatio" type="xs:float" minOccurs="0"&gt;         &lt;xs:annotation&gt;           &lt;xs:documentation&gt;Width of the active video image divided by it's height&lt;/xs:documentation&gt;         &lt;/xs:annotation&gt;       &lt;/xs:element&gt;       &lt;xs:element name="AspectRatio" type="AspectRatioType" minOccurs="0"&gt;         &lt;xs:annotation&gt; </pre>					

	<pre> &lt;xs:documentation&gt;The horizontal:vertical ratio of the complete video display including AFD-BarData (A/53)&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:choice minOccurs="0"&gt;   &lt;xs:element name="AFD-BarDataPresent" type="xs:boolean" minOccurs="0"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Indicates that active format description and bar data is used in the presentation of the video in order to convert the production image to the selected transmission aspect ratio. The actual values for these items is incorporated into the video VANC.&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:element&gt;   &lt;xs:element name="PanAndScanPresent" type="xs:boolean" minOccurs="0"&gt;     &lt;xs:annotation&gt;       &lt;xs:documentation&gt;Indicates that pan and scan techniques are being used to adjust the production image to fit the transmission aspect ratio. Note that each frame's values may be different and the actual data to determine the values are carried in the video VANC.&lt;/xs:documentation&gt;     &lt;/xs:annotation&gt;   &lt;/xs:element&gt; &lt;/xs:choice&gt; &lt;xs:element name="CaptionsInVANC" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If set to true indicates that captioning is embedded in the video VANC.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;/xs:choice&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	---

element **Video/Null**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
properties	isRef 0 content complex
annotation	documentation No Information provided for Video
source	<pre> &lt;xs:element name="Null"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;No Information provided for Video&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>

## element Video/Encoding

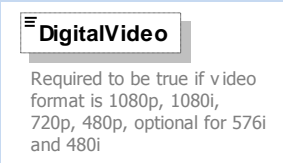
diagram						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	extension of <a href="#">VideoEncodingType</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
facets	enumeration	Uncompressed				
	enumeration	MPEG-2				
	enumeration	MPEG-4 AVC				
	enumeration	SMPTE VC-1				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">EncodingReference</a>	xs:string				documentation Allows the user to annotate the type of encoding method used
annotation	documentation If NTSC or PAL this should be set to uncompressed. The other options are various compression utilities that are used to store or transmit video.					
source	<pre> &lt;xs:element name="Encoding" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If NTSC or PAL this should be set to uncompressed. The other options are various compression utilities that are used to store or transmit video.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:complexType&gt;     &lt;xs:simpleContent&gt;       &lt;xs:extension base="VideoEncodingType"&gt;         &lt;xs:attribute name="EncodingReference" type="xs:string"&gt;           &lt;xs:annotation&gt;             &lt;xs:documentation&gt;Allows the user to annotate the type of encoding method used&lt;/xs:documentation&gt;           &lt;/xs:annotation&gt;         &lt;/xs:attribute&gt;       &lt;/xs:extension&gt;     &lt;/xs:simpleContent&gt;   &lt;/xs:complexType&gt; &lt;/xs:element&gt; </pre>					

## attribute Video/Encoding/@EncodingReference

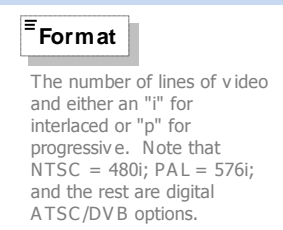
type	xs:string
properties	isRef 0

annotation	documentation Allows the user to annotate the type of encoding method used
source	<pre>&lt;xs:attribute name="EncodingReference" type="xs:string"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Allows the user to annotate the type of encoding method used&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt;</pre>

### element Video/DigitalVideo

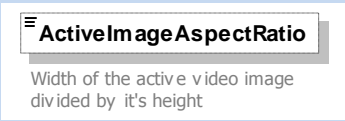
diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<b>xs:boolean</b>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								
annotation	documentation Required to be true if video format is 1080p, 1080i, 720p, 480p, optional for 576i and 480i								
source	<pre>&lt;xs:element name="DigitalVideo" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Required to be true if video format is 1080p, 1080i, 720p, 480p, optional for 576i and 480i&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>								

### element Video/Format


diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">VideoFormatType</a>								
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple
isRef	0								
minOcc	0								
maxOcc	1								
content	simple								

facets	enumeration 1080p enumeration 1080i enumeration 720p enumeration 576i enumeration 480p enumeration 480i
annotation	documentation The number of lines of video and either an "i" for interlaced or "p" for progressive. Note that NTSC = 480i; PAL = 576i; and the rest are digital ATSC/DVB options.
source	<pre>&lt;xs:element name="Format" type="VideoFormatType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The number of lines of video and either an "i" for interlaced or "p" for progressive. Note that NTSC = 480i; PAL = 576i; and the rest are digital ATSC/DVB options.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### element Video/ActiveImageAspectRatio

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:float</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Width of the active video image divided by it's height
source	<pre>&lt;xs:element name="ActiveImageAspectRatio" type="xs:float" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Width of the active video image divided by it's height&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

### element Video/AspectRatio

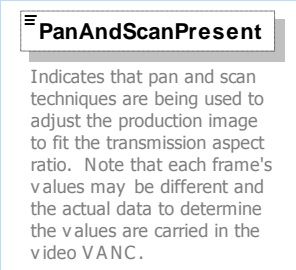
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">AspectRatioType</a>

properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration 16:9 enumeration 4:3
annotation	documentation The horizontal:vertical ratio of the complete video display including AFD-BarData (A/53)
source	<pre>&lt;xs:element name="AspectRatio" type="AspectRatioType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The horizontal:vertical ratio of the complete video display including AFD-BarData (A/53)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

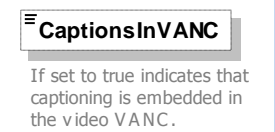
## element Video/AFD-BarDataPresent

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	xs:boolean
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Indicates that active format description and bar data is used in the presentation of the video in order to convert the production image to the selected transmission aspect ratio. The actual values for these items is incorporated into the video VANC.
source	<pre>&lt;xs:element name="AFD-BarDataPresent" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates that active format description and bar data is used in the presentation of the video in order to convert the production image to the selected transmission aspect ratio. The actual values for these items is incorporated into the video VANC.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element Video/PanAndScanPresent

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:boolean</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation Indicates that pan and scan techniques are being used to adjust the production image to fit the transmission aspect ratio. Note that each frame's values may be different and the actual data to determine the values are carried in the video VANC.
source	<pre>&lt;xs:element name="PanAndScanPresent" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates that pan and scan techniques are being used to adjust the production image to fit the transmission aspect ratio. Note that each frame's values may be different and the actual data to determine the values are carried in the video VANC.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

## element Video/CaptionsInVANC

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:boolean</b>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
annotation	documentation If set to true indicates that captioning is embedded in the video VANC.
source	<pre>&lt;xs:element name="CaptionsInVANC" type="xs:boolean" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If set to true indicates that captioning is embedded in the video VANC.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>



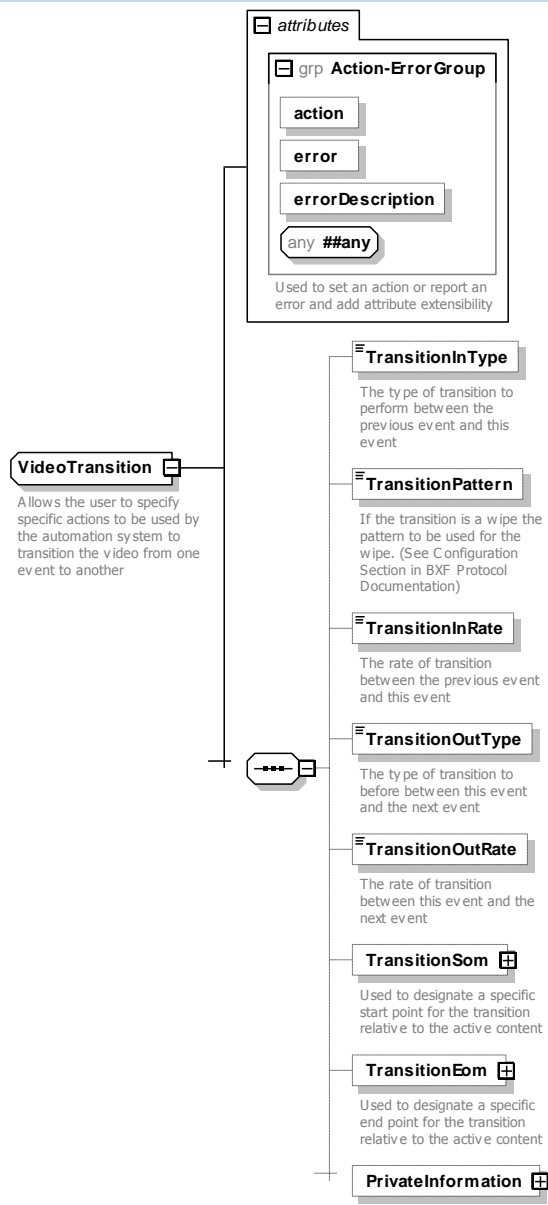
	</xs:element>
--	---------------

element **Video/PrivateInformation**

diagram	<div> <div> <div>PrivateInformation</div> <div> <div> <div>any</div> <div>##any</div> <div>0..1</div> </div> </div> </div> </div>
---------	---

## complexType VideoTransition

diagram



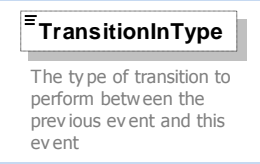
namespace <http://smpte-ra.org/schemas/2021/2008/BXF>

children [TransitionInType](#) [TransitionPattern](#) [TransitionInRate](#) [TransitionOutType](#) [TransitionOutRate](#) [TransitionSom](#) [TransitionEom](#) [PrivateInformation](#)

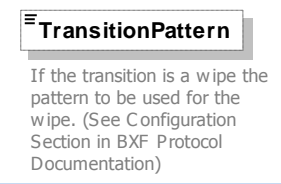
used by	element <a href="#">EventData/Transitions/VideoTransitions</a>					
attributes	Name <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <a href="#">pmcp:actionType</a> <a href="#">BxfError</a> <b>xs:string</b>	Use optional optional optional	Default	Fixed	annotation
annotation	documentation Allows the user to specify specific actions to be used by the automation system to transition the video from one event to another					
source	<pre> &lt;xs:complexType name="VideoTransition"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Allows the user to specify specific actions to be used by the automation system to transition the video from one event to another&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:sequence&gt;     &lt;xs:element name="TransitionInType" type="VideoTransitionEnumType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The type of transition to perform between the previous event and this event&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="TransitionPattern" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;If the transition is a wipe the pattern to be used for the wipe. (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:minLength value="1"/&gt;           &lt;xs:maxLength value="255"/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:element&gt;     &lt;xs:element name="TransitionInRate" type="VideoRateType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The rate of transition between the previous event and this event&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="TransitionOutType" type="VideoTransitionEnumType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The type of transition to before between this event and the next event&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="TransitionOutRate" type="VideoRateType" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;The rate of transition between this event and the next event&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="TransitionSom" type="BxfSmpteTime" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Used to designate a specific start point for the transition relative to the active content&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;     &lt;xs:element name="TransitionEom" type="BxfSmpteTime" minOccurs="0"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;Used to designate a specific end point for the transition relative to the active content&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:element&gt;   &lt;/xs:sequence&gt; &lt;/xs:complexType&gt; </pre>					

	<pre> &lt;xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/&gt; &lt;/xs:sequence&gt; &lt;xs:attributeGroup ref="Action-ErrorGroup"/&gt; &lt;/xs:complexType&gt; </pre>
--	---

## element VideoTransition/TransitionInType

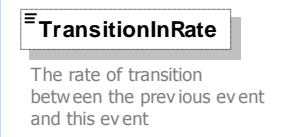
diagram	 <p><b>TransitionInType</b></p> <p>The type of transition to perform between the previous event and this event</p>												
namespace	http://smpte-ra.org/schemas/2021/2008/BXF												
type	<a href="#">VideoTransitionEnumType</a>												
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> <tr><td>content</td><td>simple</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1	content	simple				
isRef	0												
minOcc	0												
maxOcc	1												
content	simple												
facets	<table> <tr><td>enumeration</td><td>Cut</td></tr> <tr><td>enumeration</td><td>Fade-Cut</td></tr> <tr><td>enumeration</td><td>Cut-Fade</td></tr> <tr><td>enumeration</td><td>CrossFade</td></tr> <tr><td>enumeration</td><td>Mix</td></tr> <tr><td>enumeration</td><td>Wipe</td></tr> </table>	enumeration	Cut	enumeration	Fade-Cut	enumeration	Cut-Fade	enumeration	CrossFade	enumeration	Mix	enumeration	Wipe
enumeration	Cut												
enumeration	Fade-Cut												
enumeration	Cut-Fade												
enumeration	CrossFade												
enumeration	Mix												
enumeration	Wipe												
annotation	<p>documentation</p> <p>The type of transition to perform between the previous event and this event</p>												
source	<pre> &lt;xs:element name="TransitionInType" type="VideoTransitionEnumType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The type of transition to perform between the previous event and this event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>												

## element VideoTransition/TransitionPattern

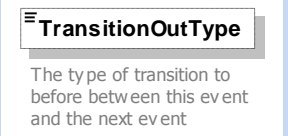
diagram	 <p><b>TransitionPattern</b></p> <p>If the transition is a wipe the pattern to be used for the wipe. (See Configuration Section in BXF Protocol Documentation)</p>						
namespace	http://smpte-ra.org/schemas/2021/2008/BXF						
type	restriction of <b>xs:string</b>						
properties	<table> <tr><td>isRef</td><td>0</td></tr> <tr><td>minOcc</td><td>0</td></tr> <tr><td>maxOcc</td><td>1</td></tr> </table>	isRef	0	minOcc	0	maxOcc	1
isRef	0						
minOcc	0						
maxOcc	1						

	content      simple
facets	minLength      1 maxLength      255
annotation	documentation If the transition is a wipe the pattern to be used for the wipe. (See Configuration Section in BXF Protocol Documentation)
source	<pre> &lt;xs:element name="TransitionPattern" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;If the transition is a wipe the pattern to be used for the wipe. (See Configuration Section in BXF Protocol Documentation)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:string"&gt;       &lt;xs:minLength value="1"/&gt;       &lt;xs:maxLength value="255"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:element&gt; </pre>

#### element **VideoTransition/TransitionInRate**

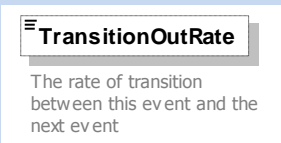
diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">VideoRateType</a>
properties	isRef      0 minOcc      0 maxOcc      1 content      simple
facets	enumeration      Fast enumeration      Medium enumeration      Slow
annotation	documentation The rate of transition between the previous event and this event
source	<pre> &lt;xs:element name="TransitionInRate" type="VideoRateType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The rate of transition between the previous event and this event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt; </pre>

#### element **VideoTransition/TransitionOutType**

diagram	
---------	---

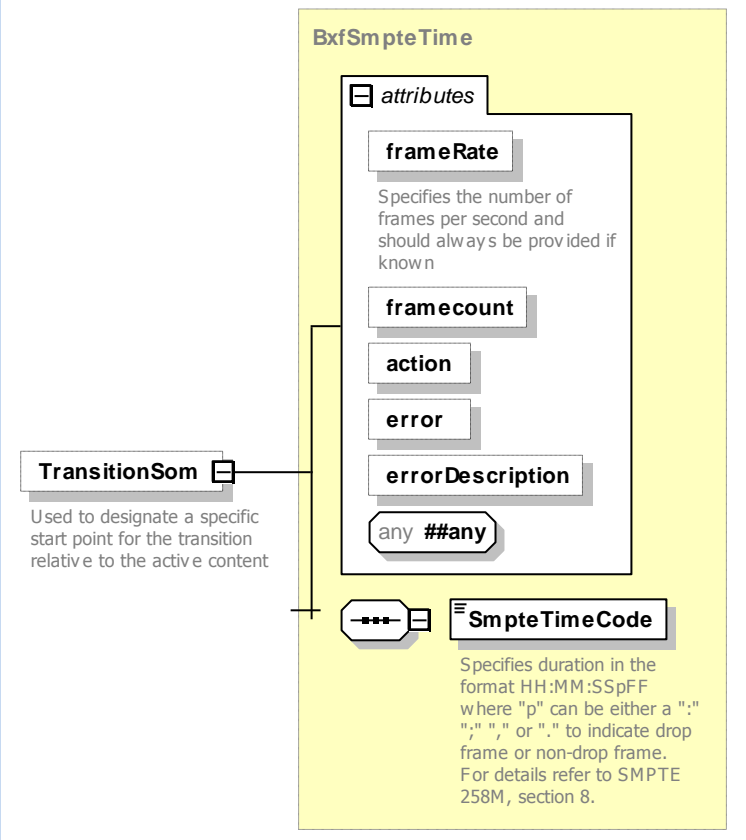
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">VideoTransitionEnumType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration Cut enumeration Fade-Cut enumeration Cut-Fade enumeration CrossFade enumeration Mix enumeration Wipe
annotation	documentation The type of transition to before between this event and the next event
source	<pre>&lt;xs:element name="TransitionOutType" type="VideoTransitionEnumType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The type of transition to before between this event and the next event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

#### element **VideoTransition/TransitionOutRate**

diagram	
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">VideoRateType</a>
properties	isRef 0 minOcc 0 maxOcc 1 content simple
facets	enumeration Fast enumeration Medium enumeration Slow
annotation	documentation The rate of transition between this event and the next event
source	<pre>&lt;xs:element name="TransitionOutRate" type="VideoRateType" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;The rate of transition between this event and the next event&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>

element **VideoTransition/TransitionSom**

diagram



namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
type	<a href="#">BxfSmpteTime</a>					
properties	isRef	0				
	minOcc	0				
	maxOcc	1				
	content	complex				
children	<a href="#">SmpteTimeCode</a>					
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">frameRate</a>	xs:decimal				documentation
						Specifies the number of frames per second and should always be provided if known
	<a href="#">framecount</a>	xs:integer				
	<a href="#">action</a>	pmcp:actionType	optional			
	<a href="#">error</a>	BxfError	optional			
	<a href="#">errorDescription</a>	xs:string	optional			

annotation	documentation Used to designate a specific start point for the transition relative to the active content
source	<xs:element name="TransitionSom" type="BxfSmpteTime" minOccurs="0"> <xs:annotation> <xs:documentation>Used to designate a specific start point for the transition relative to the active content</xs:documentation> </xs:annotation> </xs:element>

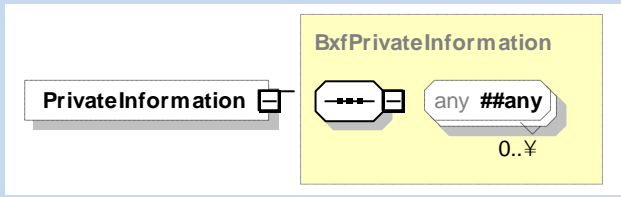
element **VideoTransition/TransitionEom**

diagram	<p>The diagram illustrates the structure of the <b>BxfSmpteTime</b> element. It is a container for several attributes and a child element. The attributes are: <b>frameRate</b> (Specifies the number of frames per second and should always be provided if known), <b>framecount</b>, <b>action</b>, <b>error</b>, and <b>errorDescription</b>. There is also an <b>any ##any</b> attribute. The child element is <b>SmpteTimeCode</b>, which specifies duration in the format HH:MM:SSpFF, where "p" can be either a ":" or a "," to indicate drop frame or non-drop frame. For details refer to SMPTE 258M, section 8. A <b>TransitionEom</b> element is shown as a child of <b>BxfSmpteTime</b>, used to designate a specific end point for the transition relative to the active content.</p>
namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">BxfSmpteTime</a>
properties	isRef 0 minOcc 0 maxOcc 1 content complex



children	<a href="#">SmpteTimeCode</a>					
attributes	Name <a href="#">frameRate</a>  <a href="#">framecount</a> <a href="#">action</a> <a href="#">error</a> <a href="#">errorDescription</a>	Type <b>xs:decimal</b>  <b>xs:integer</b> <b>pmcp:actionType</b> <b>BxfError</b> <b>xs:string</b>	Use   optional optional optional	Default   	Fixed   	annotation documentation Specifies the number of frames per second and should always be provided if known
annotation	documentation Used to designate a specific end point for the transition relative to the active content					
source	<pre>&lt;xs:element name="TransitionEom" type="BxfSmpteTime" minOccurs="0"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to designate a specific end point for the transition relative to the active content&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:element&gt;</pre>					

#### element **VideoTransition/PrivateInformation**

diagram									
namespace	http://smpte-ra.org/schemas/2021/2008/BXF								
type	<a href="#">BxfPrivateInformation</a>								
properties	<table><tr><td>isRef</td><td>0</td></tr><tr><td>minOcc</td><td>0</td></tr><tr><td>maxOcc</td><td>1</td></tr><tr><td>content</td><td>complex</td></tr></table>	isRef	0	minOcc	0	maxOcc	1	content	complex
isRef	0								
minOcc	0								
maxOcc	1								
content	complex								
source	<xs:element name="PrivateInformation" type="BxfPrivateInformation" minOccurs="0"/>								

#### simpleType **AspectRatioType**

namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	restriction of <b>xs:string</b>		
used by	elements	<a href="#">TSVideo/AspectRatio</a> <a href="#">Video/AspectRatio</a>	
facets	enumeration	16:9	
	enumeration	4:3	
annotation	documentation	Enumerates either 4:3 or 16:9 video presentation formats	
source	<xs:simpleType name="AspectRatioType"> <xs:annotation>		

	<pre> &lt;xs:documentation&gt;Enumerates either 4:3 or 16:9 video presentation formats&lt;/xs:documentation&gt; &lt;/xs:annotation&gt; &lt;xs:restriction base="xs:string"&gt;   &lt;xs:enumeration value="16:9"/&gt;   &lt;xs:enumeration value="4:3"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>
--	---

### simpleType **AsRunStatusType**

namespace	http://smpte-ra.org/schemas/2021/2008/BXF	
type	restriction of <b>xs:string</b>	
used by	element	<a href="#">AsRunDetail/Status</a>
facets	enumeration	Aired Without Discrepancy
	enumeration	Technical Difficulty
	enumeration	Did not air
	enumeration	Aired with Duration Discrepancy
	enumeration	Aired with Content Discrepancy
	enumeration	Preempted
	enumeration	Joined in Progress
	enumeration	Inserted by Operator
	enumeration	Unknown
	enumeration	Missing Content
source	<pre> &lt;xs:simpleType name="AsRunStatusType"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Aired Without Discrepancy"/&gt;     &lt;xs:enumeration value="Technical Difficulty"/&gt;     &lt;xs:enumeration value="Did not air"/&gt;     &lt;xs:enumeration value="Aired with Duration Discrepancy"/&gt;     &lt;xs:enumeration value="Aired with Content Discrepancy"/&gt;     &lt;xs:enumeration value="Preempted"/&gt;     &lt;xs:enumeration value="Joined in Progress"/&gt;     &lt;xs:enumeration value="Inserted by Operator"/&gt;     &lt;xs:enumeration value="Unknown"/&gt;     &lt;xs:enumeration value="Missing Content"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>	

### simpleType **AudioModeType**

namespace	http://smpte-ra.org/schemas/2021/2008/BXF	
type	restriction of <b>xs:string</b>	
used by	element	<a href="#">AudioTransition/AudioMode</a>
facets	enumeration	Breakaway
	enumeration	Over
	enumeration	Under
annotation	documentation	Defines the way audio is transitioned

source	<pre> &lt;xs:simpleType name="AudioModeType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Defines the way audio is transitioned&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Breakaway"/&gt;     &lt;xs:enumeration value="Over"/&gt;     &lt;xs:enumeration value="Under"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>
--------	---

### simpleType AudioRateType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	element <a href="#">AudioTransition/TransitionRate</a>
facets	enumeration Fast enumeration Medium enumeration Slow
annotation	documentation Defines the speed of an audio transition
source	<pre> &lt;xs:simpleType name="AudioRateType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Defines the speed of an audio transition&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Fast"/&gt;     &lt;xs:enumeration value="Medium"/&gt;     &lt;xs:enumeration value="Slow"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType AudioTransitionEnumType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	element <a href="#">AudioTransition/TransitionType</a>
facets	enumeration Cut enumeration Mix
annotation	documentation Indicates if an audio transition is to be mixed or a cut
source	<pre> &lt;xs:simpleType name="AudioTransitionEnumType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Indicates if an audio transition is to be mixed or a cut&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Cut"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

	<pre> &lt;xs:enumeration value="Mix"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>
--	---

### simpleType **BxfElementaryError**

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	union of ( <a href="#">pmcp:elementaryErrorType</a> , <a href="#">BxfElementaryErrorExt</a> )
used by	simpleType <a href="#">BxfError</a>
annotation	documentation Type for an elementary error
source	<pre> &lt;xs:simpleType name="BxfElementaryError"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type for an elementary error&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:union memberTypes="pmcp:elementaryErrorType BxfElementaryErrorExt"/&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType **BxfElementaryErrorExt**

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	simpleType <a href="#">BxfElementaryError</a>
facets	pattern (system_unavailable not_supported duplicate_message processing_exception)(:.*)?
annotation	documentation Type for an elementary error
source	<pre> &lt;xs:simpleType name="BxfElementaryErrorExt"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type for an elementary error&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:pattern value="(system_unavailable not_supported duplicate_message processing_exception)(:.*)?"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType **BxfError**

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	list of <a href="#">BxfElementaryError</a>
used by	attribute <a href="#">Action-ErrorGroup/@error</a>
source	<pre> &lt;xs:simpleType name="BxfError"&gt;   &lt;xs:list itemType="BxfElementaryError"/&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType BxfShortName

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<a href="#">pmcp:shortNameType</a>
used by	elements <a href="#">FormatUsage/AllowedChannels</a> <a href="#">UsagePolicy/AssignedChannels</a>
facets	maxLength 7
source	<pre>&lt;xs:simpleType name="BxfShortName"&gt;   &lt;xs:restriction base="pmcp:shortNameType"/&gt; &lt;/xs:simpleType&gt;</pre>

### simpleType BxfStatus

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	union of ( <a href="#">pmcp:statusType</a> , <a href="#">BxfStatusExtType</a> )
used by	attribute <a href="#">BxfMessage/@status</a>
annotation	documentation Status of a reply message
source	<pre>&lt;xs:simpleType name="BxfStatus"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Status of a reply message&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:union memberTypes="pmcp:statusType BxfStatusExtType"/&gt; &lt;/xs:simpleType&gt;</pre>

### simpleType BxfStatusExtType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	simpleType <a href="#">BxfStatus</a>
facets	enumeration warning
source	<pre>&lt;xs:simpleType name="BxfStatusExtType"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="warning"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt;</pre>

### simpleType BxfUri

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
-----------	---

type	<b>xs:anyURI</b>
used by	element <a href="#">Location/AssetServer/PathName</a>
annotation	documentation Used to denote a universal file location
source	<pre> &lt;xs:simpleType name="BxfUri"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to denote a universal file location&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:anyURI"/&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType DayPattern

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	element <a href="#">Constraint/Rules/DaysOfWeekAllowed</a> attributes <a href="#">Schedule/@dayPattern</a> <a href="#">ContentTransfer/@dayPattern</a>
facets	length 7 pattern [0,1]{7}
annotation	documentation A binary representation of the days of the week with Monday in the left-most position (eg - "1111100" = M-F)
source	<pre> &lt;xs:simpleType name="DayPattern"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;A binary representation of the days of the week with Monday in the left-most position (eg - "1111100" = M-F)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:length value="7"/&gt;     &lt;xs:pattern value="[0,1]{7}" /&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType DestinationType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:string</b>
used by	attribute <a href="#">BxfMessage/@destinationType</a>
annotation	documentation Type of the destination system (see ATSC code point registry - <a href="http://www.atsc.org/standards/Code_Point_Registry.pdf">www.atsc.org/standards/Code_Point_Registry.pdf</a> )
source	<pre> &lt;xs:simpleType name="DestinationType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type of the destination system (see ATSC code point registry - <a href="http://www.atsc.org/standards/Code_Point_Registry.pdf">www.atsc.org/standards/Code_Point_Registry.pdf</a>)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"/&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType EiCode

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	element <a href="#">ScheduledEvent/EiCode</a>
facets	minLength 7 maxLength 9 pattern E-I [0-9]{0,1}[0-9]-[0-9]{0,1}[0-9]
annotation	documentation FCC Children's and Information Codes
source	<pre> &lt;xs:simpleType name="EiCode"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;FCC Children's and Information Codes&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:minLength value="7"/&gt;     &lt;xs:maxLength value="9"/&gt;     &lt;xs:pattern value="E-I [0-9]{0,1}[0-9]-[0-9]{0,1}[0-9]"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType EndModeType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	element <a href="#">EventData/EndMode</a>
facets	enumeration Duration enumeration Manual enumeration External
source	<pre> &lt;xs:simpleType name="EndModeType"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Duration"/&gt;     &lt;xs:enumeration value="Manual"/&gt;     &lt;xs:enumeration value="External"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType MessageType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	attribute <a href="#">BxfMessage/@messageType</a>
facets	enumeration Acknowledgement enumeration Heartbeat enumeration Information enumeration Message Status Request

	enumeration Request enumeration Reply
annotation	documentation Allowed types of messages in this schema
source	<pre> &lt;xs:simpleType name="MessageType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Allowed types of messages in this schema&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Acknowledgement"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;An acknowledgement that a message was received.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:enumeration&gt;     &lt;xs:enumeration value="Heartbeat"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A message for checking connectivity.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:enumeration&gt;     &lt;xs:enumeration value="Information"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A notification of changes or request to do something that does not warrant a reply.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:enumeration&gt;     &lt;xs:enumeration value="Message Status Request"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A request for the status of a message that was previously sent.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:enumeration&gt;     &lt;xs:enumeration value="Request"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A request to do something that requires a reply.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:enumeration&gt;     &lt;xs:enumeration value="Reply"&gt;       &lt;xs:annotation&gt;         &lt;xs:documentation&gt;A reply to a request message.&lt;/xs:documentation&gt;       &lt;/xs:annotation&gt;     &lt;/xs:enumeration&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType OperationalModeType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
facets	enumeration Normal enumeration JIP enumeration Expendable
source	<pre> &lt;xs:simpleType name="OperationalModeType"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Normal"/&gt; </pre>



	<pre> &lt;xs:enumeration value="JIP"/&gt; &lt;xs:enumeration value="Expendable"/&gt; &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>
--	--

### simpleType OriginType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	<b>xs:string</b>
used by	attribute <a href="#">BxfMessage/@originType</a>
annotation	documentation Type of the origin system (see ATSC code point registry - <a href="http://www.atsc.org/standards/Code_Point_Registry.pdf">www.atsc.org/standards/Code_Point_Registry.pdf</a> )
source	<pre> &lt;xs:simpleType name="OriginType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Type of the origin system (see ATSC code point registry - <a href="http://www.atsc.org/standards/Code_Point_Registry.pdf">www.atsc.org/standards/Code_Point_Registry.pdf</a>)&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"/&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType PriorityType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	attribute <a href="#">ContentTransfer/@priority</a>
facets	<pre> enumeration    Deferred enumeration    Urgent enumeration    High enumeration    Normal enumeration    Low </pre>
source	<pre> &lt;xs:simpleType name="PriorityType"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Deferred"/&gt;     &lt;xs:enumeration value="Urgent"/&gt;     &lt;xs:enumeration value="High"/&gt;     &lt;xs:enumeration value="Normal"/&gt;     &lt;xs:enumeration value="Low"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType ProgramContentType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	element <a href="#">ProgramElement/Type</a>

facets	enumeration enumeration Interactive ProgramSegment
source	<pre>&lt;xs:simpleType name="ProgramContentType"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Interactive"/&gt;     &lt;xs:enumeration value="ProgramSegment"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt;</pre>

### simpleType QueryString

namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	restriction of <b>xs:string</b>		
used by	element	<a href="#">BxfMessage/BxfQuery/WhereClause</a>	
facets	pattern	[A-Z][a-zA-Z0-9]*(/[A-Z][a-zA-Z0-9]*)*/(@[a-z][a-zA-Z0-9]*){0,1}(\s)*(= &gt; = &lt; &lt; = !)=\s*[&quot;][^&quot;]*[&quot;](\s+(AND and or OR)\s+[A-Z][a-zA-Z0-9]*(/[A-Z][a-zA-Z0-9]*)*/(@[a-z][a-zA-Z0-9]*){0,1}\s*(= &gt; = &lt; &lt; = !)=\s*[&quot;][^&quot;]*[&quot;]\s*)*	
	pattern	\s*	
annotation	documentation	Restricts the Query where clause based on a pattern. Note that negation requests are not supported.	
source	<pre>&lt;xs:simpleType name="QueryString"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Restricts the Query where clause based on a pattern. Note that negation requests are not supported.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:pattern value="[A-Z][a-zA-Z0-9]*(/[A-Z][a-zA-Z0-9]*)*/(@[a-z][a-zA-Z0-9]*){0,1}(\s)*(= &amp;gt; = &amp;lt; &amp;lt; = !)=\s*[&amp;quot;][^&amp;quot;]*[&amp;quot;](\s+(AND and or OR)\s+[A-Z][a-zA-Z0-9]*(/[A-Z][a-zA-Z0-9]*)*/(@[a-z][a-zA-Z0-9]*){0,1}\s*(= &amp;gt; = &amp;lt; &amp;lt; = !)=\s*[&amp;quot;][^&amp;quot;]*[&amp;quot;]\s*)*" /&gt;     &lt;xs:pattern value="\s*" /&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt;</pre>		

### simpleType QueryStringIdentifier

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	element <a href="#">BxfMessage/BxfQuery/ReturnStructure</a>
facets	pattern [A-Z][a-zA-Z0-9]*(/[A-Z][a-zA-Z0-9]*)*(\^){0,1}
annotation	documentation Restricts Query ReturnStrcutre based on a pattern that would restrict the return structure to follow the “camel back” style used in the Schema
source	<xs:simpleType name="QueryStringIdentifier"> <xs:annotation> <xs:documentation>Restricts Query ReturnStrcutre based on a pattern that would restrict the return structure to follow the “camel back” style used in the Schema</xs:documentation> </xs:annotation> <xs:restriction base="xs:string"> <xs:pattern value="[A-Z][a-zA-Z0-9]*(/[A-Z][a-zA-Z0-9]*)*(\^){0,1}" /> </xs:restriction>

	</xs:simpleType>
--	------------------

### simpleType **ScheduleEventType**

namespace	http://smppte-ra.org/schemas/2021/2008/BXF	
type	restriction of <b>xs:string</b>	
used by	element	<a href="#">AsRunDetail/Type</a>
facets	enumeration      Primary enumeration      NonPrimary enumeration      Auxillary enumeration      Comment enumeration      ProgramHeader enumeration      BreakHeader enumeration      Macro enumeration      Data	
source	<xs:simpleType name="ScheduleEventType"> <xs:restriction base="xs:string"> <xs:enumeration value="Primary"/> <xs:enumeration value="NonPrimary"/> <xs:enumeration value="Auxillary"/> <xs:enumeration value="Comment"/> <xs:enumeration value="ProgramHeader"/> <xs:enumeration value="BreakHeader"/> <xs:enumeration value="Macro"/> <xs:enumeration value="Data"/> </xs:restriction> </xs:simpleType>	

### simpleType **ScheduleType**

namespace	http://smppte-ra.org/schemas/2021/2008/BXF	
type	restriction of <b>xs:string</b>	
used by	attribute	<a href="#">Schedule/@type</a>
facets	enumeration      Primary enumeration      Alternate	
annotation	documentation A type of schedule	
source	<xs:simpleType name="ScheduleType"> <xs:annotation> <xs:documentation>A type of schedule</xs:documentation> </xs:annotation> <xs:restriction base="xs:string"> <xs:enumeration value="Primary"/> <xs:enumeration value="Alternate"/> </xs:restriction> </xs:simpleType>	

### simpleType Smppte258MTimeCode

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:token</b>
used by	element <a href="#">BxfSmppteTime/SmppteTimeCode</a>
facets	pattern <code>((([0-1][0-9]) ([2][0-3])):[0-5][0-9]:[0-5][0-9](([.]) ([:]))[0-2][0-9])</code>
annotation	documentation Reference SMPTE 258M, section 8
source	<pre> &lt;xs:simpleType name="Smppte258MTimeCode"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Reference SMPTE 258M, section 8&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:token"&gt;     &lt;xs:pattern value="((([0-1][0-9]) ([2][0-3])):[0-5][0-9]:[0-5][0-9](([.]) ([:]))[0-2][0-9])"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType StartModeType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	element <a href="#">EventData/StartMode</a>
facets	enumeration Follow enumeration Fixed enumeration Manual enumeration External
source	<pre> &lt;xs:simpleType name="StartModeType"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Follow"/&gt;     &lt;xs:enumeration value="Fixed"/&gt;     &lt;xs:enumeration value="Manual"/&gt;     &lt;xs:enumeration value="External"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType TransferStatusType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	attribute <a href="#">ContentTransfer/@status</a>
facets	enumeration Unknown enumeration Failed enumeration Completed enumeration Inprogress

	enumeration Pending
source	<pre> &lt;xs:simpleType name="TransferStatusType"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Unknown"/&gt;     &lt;xs:enumeration value="Failed"/&gt;     &lt;xs:enumeration value="Completed"/&gt;     &lt;xs:enumeration value="Inprogress"/&gt;     &lt;xs:enumeration value="Pending"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType TransferType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	attribute <a href="#">ContentTransfer/@transferType</a>
facets	enumeration Recording enumeration Duplication enumeration File transfer enumeration Purge
source	<pre> &lt;xs:simpleType name="TransferType"&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Recording"/&gt;     &lt;xs:enumeration value="Duplication"/&gt;     &lt;xs:enumeration value="File transfer"/&gt;     &lt;xs:enumeration value="Purge"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType TSVideoEncodingType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	element <a href="#">TSVideo/Encoding</a>
facets	enumeration MPEG-2 enumeration MPEG-4 AVC enumeration SMPTE VC-1
annotation	documentation Enumerates various methods used to compress video in a transport stream
source	<pre> &lt;xs:simpleType name="TSVideoEncodingType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumerates various methods used to compress video in a transport stream&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="MPEG-2"/&gt;     &lt;xs:enumeration value="MPEG-4 AVC"/&gt;     &lt;xs:enumeration value="SMPTE VC-1"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

	<code>&lt;/xs:restriction&gt;</code> <code>&lt;/xs:simpleType&gt;</code>
--	---

### simpleType Uuid

namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	restriction of <b>xs:anyURI</b>		
used by	elements	<a href="#">EventExtId/EventId</a> <a href="#">ScheduledEvent/Format/FormatId</a> <a href="#">Format/FormatId</a> <a href="#">EventData/InsertAfterEventId</a> <a href="#">NonPrimaryEvent/NonPrimaryElementId</a> <a href="#">Format/FormatStructure/FormatElements/NonPrimaryElements/NonPrimaryElementId</a> <a href="#">PrimaryEvent/PrimaryElementId</a> <a href="#">Format/FormatStructure/FormatElements/PrimaryElementId</a> <a href="#">NonPrimaryEvent/PrimaryEventId</a> <a href="#">BxfMessage/@destinationId</a> <a href="#">BxfMessage/@id</a> <a href="#">BxfMessage/@originId</a> <a href="#">BxfMessage/@originMessageId</a> <a href="#">ContentTransfer/@parentTransferId</a> <a href="#">Constraint/Rules/@ruleId</a> <a href="#">Schedule/@scheduleId</a> <a href="#">ContentTransfer/@transferId</a>	
	attributes		
facets	length	45	
	pattern	urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}	
annotation	documentation	A universal unique identifier, as described by RFC 4122.	
source	<pre>&lt;xs:simpleType name="Uuid"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation xml:lang="en-US"&gt;A universal unique identifier, as described by RFC 4122.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:anyURI"&gt;     &lt;xs:length value="45"/&gt;     &lt;xs:pattern value="urn:uuid:[a-fA-F0-9]{8}(\-[a-fA-F0-9]{4}){3}\-[a-fA-F0-9]{12}"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt;</pre>		

### simpleType VideoEncodingType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	restriction of <b>xs:string</b>		
used by	element	<a href="#">Video/Encoding</a>	
facets	enumeration	Uncompressed	
	enumeration	MPEG-2	
	enumeration	MPEG-4 AVC	
	enumeration	SMPTE VC-1	
annotation	documentation	Enumerates various methods of compressing video	
source	<pre>&lt;xs:simpleType name="VideoEncodingType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumerates various methods of compressing video&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Uncompressed"/&gt;     &lt;xs:enumeration value="MPEG-2"/&gt;     &lt;xs:enumeration value="MPEG-4 AVC"/&gt;     &lt;xs:enumeration value="SMPTE VC-1"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt;</pre>		

### simpleType VideoFormatType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	elements <a href="#">TSVideo/Format Video/Format</a>
facets	enumeration 1080p enumeration 1080i enumeration 720p enumeration 576i enumeration 480p enumeration 480i
annotation	documentation Enumerates the different video presentation formats
source	<pre> &lt;xs:simpleType name="VideoFormatType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumerates the different video presentation formats&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="1080p"/&gt;     &lt;xs:enumeration value="1080i"/&gt;     &lt;xs:enumeration value="720p"/&gt;     &lt;xs:enumeration value="576i"/&gt;     &lt;xs:enumeration value="480p"/&gt;     &lt;xs:enumeration value="480i"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

### simpleType VideoRateType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF
type	restriction of <b>xs:string</b>
used by	elements <a href="#">VideoTransition/TransitionInRate</a> <a href="#">VideoTransition/TransitionOutRate</a>
facets	enumeration Fast enumeration Medium enumeration Slow
annotation	documentation Enumerates the speed of a video transition
source	<pre> &lt;xs:simpleType name="VideoRateType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumerates the speed of a video transition&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Fast"/&gt;     &lt;xs:enumeration value="Medium"/&gt;     &lt;xs:enumeration value="Slow"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; </pre>

## simpleType VideoTransitionEnumType

namespace	http://smpte-ra.org/schemas/2021/2008/BXF		
type	restriction of <b>xs:string</b>		
used by	elements	<a href="#">VideoTransition/TransitionInType</a> <a href="#">VideoTransition/TransitionOutType</a>	
facets	enumeration	Cut	
	enumeration	Fade-Cut	
	enumeration	Cut-Fade	
	enumeration	CrossFade	
	enumeration	Mix	
	enumeration	Wipe	
annotation	documentation	Enumerates various transition options	
source	<pre>&lt;xs:simpleType name="VideoTransitionEnumType"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Enumerates various transition options&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:restriction base="xs:string"&gt;     &lt;xs:enumeration value="Cut"/&gt;     &lt;xs:enumeration value="Fade-Cut"/&gt;     &lt;xs:enumeration value="Cut-Fade"/&gt;     &lt;xs:enumeration value="CrossFade"/&gt;     &lt;xs:enumeration value="Mix"/&gt;     &lt;xs:enumeration value="Wipe"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt;</pre>		

## attributeGroup Action-ErrorGroup

namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
used by	elements	<a href="#">NonProgramDetail/Agency</a> <a href="#">Location/AssetServer</a> <a href="#">BxfMessage/BxfData</a> <a href="#">BxfMessage</a> <a href="#">BxfMessage/BxfQuery</a> <a href="#">BxfMessage/BxfQueryResponse</a> <a href="#">Format/FormatStructure/FormatElements</a> <a href="#">Location/PhysicalAsset</a> <a href="#">NonProgramDetail/Product</a> <a href="#">Location/RouterSource</a> <a href="#">Constraint/Rules</a> <a href="#">Location/Satellite</a>				
	complexTypes	<a href="#">AlternateAudioContent</a> <a href="#">AnalogAudio</a> <a href="#">AsRunDetail</a> <a href="#">Audio</a> <a href="#">AudioTransition</a> <a href="#">BaseMedia</a> <a href="#">BasicAsRun</a> <a href="#">BxfCaptions</a> <a href="#">BxfContentId</a> <a href="#">BxfSmpTime</a> <a href="#">BxfText</a> <a href="#">BxfUtcDateTime</a> <a href="#">Configuration</a> <a href="#">Content</a> <a href="#">ContentMetaData</a> <a href="#">ContentTransfer</a> <a href="#">DigitalAudio</a> <a href="#">DigitalAudioAttribute</a> <a href="#">Element</a> <a href="#">EventData</a> <a href="#">Format</a> <a href="#">FormatUsage</a> <a href="#">Location</a> <a href="#">Macro</a> <a href="#">MediaLocation</a> <a href="#">NonPrimaryEvent</a> <a href="#">NonProgramContent</a> <a href="#">NonProgramDetail</a> <a href="#">NonProgramEvent</a> <a href="#">PrimaryEvent</a> <a href="#">ProgramContent</a> <a href="#">ProgramContract</a> <a href="#">ProgramElement</a> <a href="#">ProgramEvent</a> <a href="#">SalesContract</a> <a href="#">Schedule</a> <a href="#">ScheduledEvent</a> <a href="#">Series</a> <a href="#">TSVideo</a> <a href="#">UsagePolicy</a> <a href="#">Video</a> <a href="#">VideoTransition</a>				
attributes	Name	Type	Use	Default	Fixed	annotation
	<a href="#">action</a>	<a href="#">pmcp:actionType</a>	optional			
	<a href="#">error</a>	<a href="#">BxfError</a>	optional			
	<a href="#">errorDescription</a>	<b>xs:string</b>	optional			
annotation	documentation	Used to set an action or report an error and add attribute extensibility				
source	<pre>&lt;xs:attributeGroup name="Action-ErrorGroup"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to set an action or report an error and add attribute extensibility&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:attribute name="action" type="pmcp:actionType" use="optional"/&gt; &lt;/xs:attributeGroup&gt;</pre>					



	<pre> &lt;xs:attribute name="error" type="BxfError" use="optional"/&gt; &lt;xs:attribute name="errorDescription" type="xs:string" use="optional"/&gt; &lt;xs:anyAttribute namespace="##any" processContents="lax"/&gt; &lt;/xs:attributeGroup&gt; </pre>
--	--

### attributeGroup **PmcpActionErrorExtensionGroup**

namespace	http://smpte-ra.org/schemas/2021/2008/BXF					
used by	complexTypes <a href="#">Ac3AudioExt</a> <a href="#">Audios</a> <a href="#">BxfAlternateId</a> <a href="#">BxfCaption608</a> <a href="#">BxfCaption708</a> <a href="#">BxfHouseNumber</a> <a href="#">BxfIsan</a> <a href="#">BxfParentalRating</a> <a href="#">Channel</a>					
attributes	Name <a href="#">errorDescription</a>	Type <b>xs:string</b>	Use optional	Default	Fixed	annotation
annotation	documentation Used to set an action or report an error and add attribute extensibility					
source	<pre> &lt;xs:attributeGroup name="PmcpActionErrorExtensionGroup"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Used to set an action or report an error and add attribute extensibility&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:attribute name="errorDescription" type="xs:string" use="optional"/&gt;   &lt;xs:anyAttribute namespace="##any" processContents="lax"/&gt; &lt;/xs:attributeGroup&gt; </pre>					

### attribute **base**

namespace	http://www.w3.org/XML/1998/namespace					
type	<b>xs:anyURI</b>					
used by	attributeGroup <a href="#">specialAttrs</a>					
annotation	documentation See http://www.w3.org/TR/xmlbase/ for information about this attribute.					
source	<pre> &lt;xs:attribute name="base" type="xs:anyURI"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;See http://www.w3.org/TR/xmlbase/ for information about this attribute.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt; &lt;/xs:attribute&gt; </pre>					

### attribute **id**

namespace	http://www.w3.org/XML/1998/namespace					
type	<b>xs:ID</b>					
annotation	documentation See http://www.w3.org/TR/xml-id/ for information about this attribute.					
source	<pre> &lt;xs:attribute name="id" type="xs:ID"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;See http://www.w3.org/TR/xml-id/ for </pre>					

	<p>information about this attribute. <code>&lt;/xs:documentation&gt;</code></p> <p><code>&lt;/xs:annotation&gt;</code></p> <p><code>&lt;/xs:attribute&gt;</code></p>
--	--

### attribute lang

namespace	http://www.w3.org/XML/1998/namespace
type	union of ( <b>xs:language</b> , restriction of <b>xs:string</b> )
used by	attributeGroup <a href="#">specialAttrs</a>
annotation	<p>documentation</p> <p>Attempting to install the relevant ISO 2- and 3-letter codes as the enumerated possible values is probably never going to be a realistic possibility. See RFC 3066 at <a href="http://www.ietf.org/rfc/rfc3066.txt">http://www.ietf.org/rfc/rfc3066.txt</a> and the IANA registry at <a href="http://www.iana.org/assignments/lang-tag-apps.htm">http://www.iana.org/assignments/lang-tag-apps.htm</a> for further information.</p> <p>The union allows for the 'un-declaration' of xml:lang with the empty string.</p>
source	<pre> &lt;xs:attribute name="lang"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;Attempting to install the relevant ISO 2- and 3-letter codes as the enumerated possible values is probably never going to be a realistic possibility. See RFC 3066 at http://www.ietf.org/rfc/rfc3066.txt and the IANA registry at http://www.iana.org/assignments/lang-tag-apps.htm for further information.  The union allows for the 'un-declaration' of xml:lang with the empty string.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleType&gt;     &lt;xs:union memberTypes="xs:language"&gt;       &lt;xs:simpleType&gt;         &lt;xs:restriction base="xs:string"&gt;           &lt;xs:enumeration value=""/&gt;         &lt;/xs:restriction&gt;       &lt;/xs:simpleType&gt;     &lt;/xs:union&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt; </pre>

### attribute space

namespace	http://www.w3.org/XML/1998/namespace
type	restriction of <b>xs:NCName</b>
used by	attributeGroup <a href="#">specialAttrs</a>

facets	<div>enumeration</div> <div>enumeration</div> <div>default</div> <div>preserve</div>
source	<pre>&lt;xs:attribute name="space"&gt;   &lt;xs:simpleType&gt;     &lt;xs:restriction base="xs:NCName"&gt;       &lt;xs:enumeration value="default"/&gt;       &lt;xs:enumeration value="preserve"/&gt;     &lt;/xs:restriction&gt;   &lt;/xs:simpleType&gt; &lt;/xs:attribute&gt;</pre>

#### attributeGroup **specialAttrs**

namespace	http://www.w3.org/XML/1998/namespace					
attributes	<div>Name</div> <div><a href="#">base</a></div> <div><a href="#">lang</a></div> <div><a href="#">space</a></div>	Type	Use	Default	Fixed	<div>annotation</div> <div>documentation</div> <div>See <a href="http://www.w3.org/TR/xmlbase/">http://www.w3.org/TR/xmlbase/</a> for information about this attribute.</div> <div>documentation</div> <div>Attempting to install the relevant ISO 2- and 3-letter codes as the enumerated possible values is probably never going to be a realistic possibility. See RFC 3066 at <a href="http://www.ietf.org/rfc/rfc3066.txt">http://www.ietf.org/rfc/rfc3066.txt</a> and the IANA registry at <a href="http://www.iana.org/assignments/lang-tag-apps.htm">http://www.iana.org/assignments/lang-tag-apps.htm</a> for further information.</div> <div>The union allows for the 'un-declaration' of xml:lang with the empty string.</div>
source	<pre>&lt;xs:attributeGroup name="specialAttrs"&gt;   &lt;xs:attribute ref="xml:base"/&gt;   &lt;xs:attribute ref="xml:lang"/&gt;   &lt;xs:attribute ref="xml:space"/&gt; &lt;/xs:attributeGroup&gt;</pre>					