SMPTE RP 2021-5:2013

SMPTE RECOMMENDED PRACTICE

Using Ad-ID and EIDR as Alternate Identifiers in SMPTE BXF and ATSC PMCP

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Foreword

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SMPTE RP 2021-5 was prepared by Technology Committee 34CS.

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Introduction

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

Entertainment ID Registry (EIDR) identifiers are used for global unique identification of movie and TV content.

Ad-ID identifiers are used for global unique identification of advertising content.

SMPTE ST 2021-1 Broadcast Exchange Format (BXF) allows content to be associated with alternate content identifiers using elements of type BxfAlternateId. BxfAlternateId is derived from the AlternateIdType type defined in ATSC A/76B Programming Metadata Communication Protocol (PMCP).

This document provides guidance for the use of both Ad-ID and EIDR to identify program and non-program (advertising) content respectively within BXF.

1 Scope

This specification specifies the use of an Ad-ID and EIDR Identifiers as alternate identifier in SMPTE ST 2021-1 Broadcast Exchange Format (BXF) and ATSC A/76B Programming Metadata Communication Protocol (PMCP).

2 Conformance Notation

Normative text is text 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 this document is, by default, normative, except: the Introduction, any section explicitly labeled as "Informative" or individual paragraphs that start with "Note:"

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 this 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.

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.

3 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this recommended practice. 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.

ATSC (Document A/76B, 14 January 2008), Programming Metadata Communication Protocol

SMPTE ST 2021-1:2012, Broadcast Exchange Format (BXF) — Requirements and Informative Notes

SMPTE RP 2021-9:2012, Implementing Broadcast Exchange Format (BXF)

SMPTE RP 2079:2013, Digital Object Identifier (DOI) Name and Entertainment ID Registry (EIDR) Identifier Representations

4 Use in AlternateIdType

4.1 General

AlternateIdType, specified in ATSC A/76B, is utilized by BXF for defining alternate identifiers to be used to identify content.

4.2 Ad-ID

The following shall apply when an Ad-ID Identifier is used as the value of an element of type `AlternateIdType`, as specified in ATSC A/76:

- The `idType` attribute of the element shall be equal to the string "Ad-ID"

Note: SMPTE RDD 17 provides background on Ad-ID.

Table provides an example of an element of type `AlternateIdType` containing an Ad-ID Identifier.

Table 1 – Ad-ID Identifier in PCMP example

```
<AlternateId idType="Ad-ID" xmlns="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1">
ABCD1234000H</AlternateId>
```

4.3 EIDR

The following shall apply when an EIDR Identifier is used as the value of an element of type `AlternateIdType`, as specified in ATSC A/76:

- The value of the element shall be an EIDR Identifier as specified in Section 6 of SMPTE RP 2079.
- The `idType` attribute of the element shall be equal to the string "EIDR".

Table provides an example of an element of type `AlternateIdType` containing an EIDR Identifier.

Table 2 – EIDR Identifier in PCMP example

```
<AlternateId idType="EIDR"
xmlns="http://www.atsc.org/XMLSchemas/pmcp/2007/3.1">10.5240/5FD4-FEE1-22F5-583E-
FECC-O</AlternateId>
```

5 Use in BxfAlternateId

5.1 General

The recommendations of RP 2021-9 regarding `AlternateIdType` should be followed.

Note: The provisions of this Section are applicable to versions of SMPTE ST 2021-1 up to and including that referenced herein. Annex B and Annex C specify the use of features specific to the 2013 set of schemas included in the SMPTE 2021 suite, commonly known as “BXF 3.0”.

Note: The `BxfAlternateId` type specified in SMPTE ST 2021-1 is derived from `AlternateIdType` type specified in ATSC A/76B.

5.2 Ad-ID

Both the provisions of Section 4.1 of this document and the following provisions shall apply when an Ad-ID Identifier is used as the value of an element of type `BxfAlternateId` as specified in SMPTE ST 2021-1:

- The `authoritativeSource` attribute of the element shall be present and equal to the string "http://ad-id.org/".

Table 3 provides an example of element of type `BxfAlternateId` containing an Ad-ID Identifier.

Table 3 – Ad-ID Identifier in BXF example

```
<BxfContentId idType="Ad-ID" authoritativeSource="http://ad-id.org/"
xmlns="http://smpte-ra.org/schemas/2021/2012/BXF">ABCD1234000H</BxfContentId>
```

5.3 EIDR

Both the provisions of Section 4.2 of this document and the following provisions shall apply when an EIDR Identifier is used as the value of an element of type `BxfAlternateId` as specified in SMPTE ST 2021-1:

- The `authoritativeSource` attribute of the element shall be present and equal to the string "http://eidr.org/".

Table 4 provides an example of element of type `BxfAlternateId` containing an EIDR Identifier.

Table 4 – EIDR Identifier in BXF example.

```
<BxfContentId idType="EIDR" authoritativeSource="http://eidr.org/"
xmlns="http://smpte-ra.org/schemas/2021/2012/BXF">10.5240/5FD4-FEE1-22F5-583E-FECC-
O</BxfContentId>
```

6 BXF 3.0 Classification Enhancements for Ad-ID

A set of new nodes have been added to the NonProgramDetail XSD as part of the “BXF 3.0”. These new nodes map directly to the Ad-ID registration in the RP210 directory.

To help in understanding a real world use of these nodes, an ad for Sudafed will be used in the examples below.

6.1 ParentCompany

ParentCompany was added as a new optional element under the Advertiser node of NonProgramDetail.

This is the parent company of the advertiser. An example would be “JOHNSON & JOHNSON” as the parent company, but “MCNEIL NUTRITIONALS LLC” would be the advertiser.

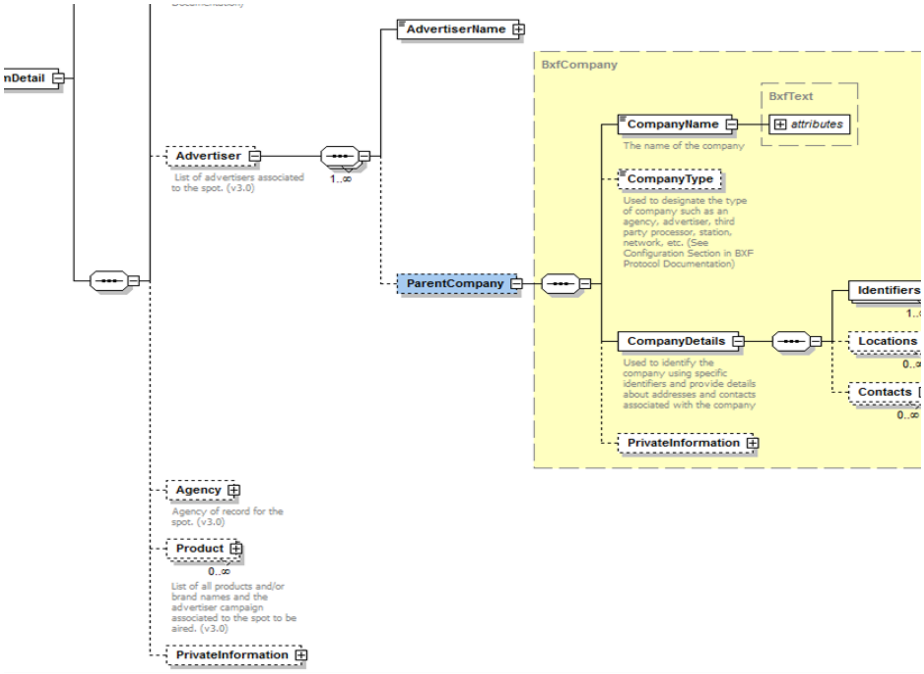


Figure 1 – ParentCompany Structure

ProductCode was added as a new optional element under the Product node of NonProgramDetail. ProductCode in turn contains the following optional attributes, which collectively allow advertising systems to enforce ad separation rules at a variety of levels:

6.2 industryGroup

This is a high level category that is used to classify the ad at the highest, most abstract, level. In this example, the industryGroup would be “DRUGS & REMEDIES”.

6.3 majorCategory

This is a hierarchical category under the Industry Group that is used to further classify the ad. In this example, the majorCategory would be “MEDICINES & PROPRIETARY REMEDIES”.

6.4 Subcategory

This is a hierarchical category under the Major Category that is used to classify advertising at a more detailed level. In this example, the Subcategory would be “COLD, COUGH & SINUS REMEDIES”.

6.5 productCategory

This is a hierarchical category under the Sub Category that is used to provide the most detailed classification of the ad. In this example, the productCategory would be “NASAL DECONGESTANTS”.

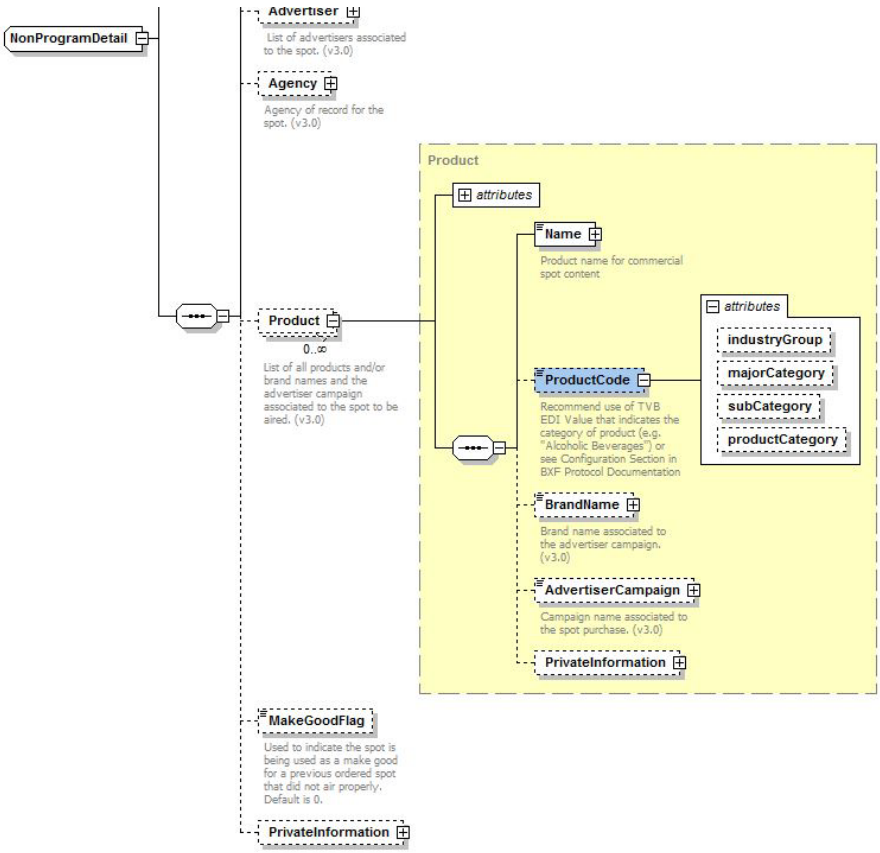


Figure 2 – ProductCode Structure

Annex A Bibliography (Informative)

SMPTE RP 210, Metadata Dictionary

SMPTE RDD 17:2009, Advertising Digital Identification (Ad-ID)

Annex B Importance of Ad-ID with New TrafficInstructions Node (Informative)

The ability to exchange traffic instructions from ad agencies to media organizations has been added to BXF within the “BXF 3.0” release.

This new node uses BXF’s Content structure to associate advertising spots with placement instructions sent by agencies to broadcasters. To ensure that the proper spots are played as specified by the agency, it is even more critical that the advertising spot be uniquely identified.

For this reason, it is recommended that Ad-ID be used to identify non-program material within BXF messages.

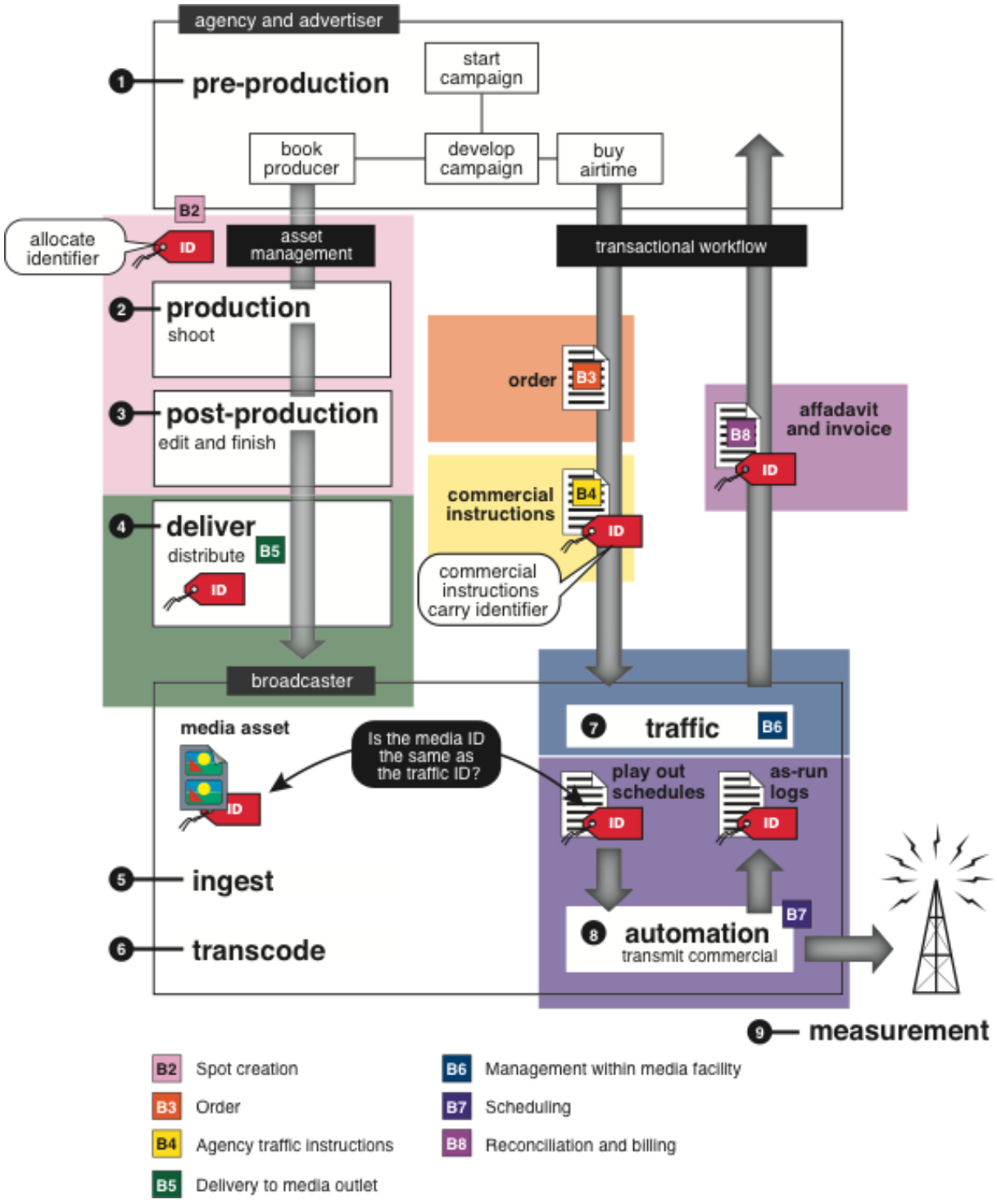
Annex C Recommended Workflow using Ad-ID and BXF (Informative)

To fully leverage the value of a unique, managed identifier for commercial material like Ad-ID, the entire lifecycle of an advertising spot should be considered.

In this section is a series of illustrations, showing the role of Ad-ID in BXF, first from a macro view of the entire process, and then micro views of the various transactions using Ad-ID, starting from the initial agency buy, through scheduling and airing of the spot, to its reconciliation and billing.

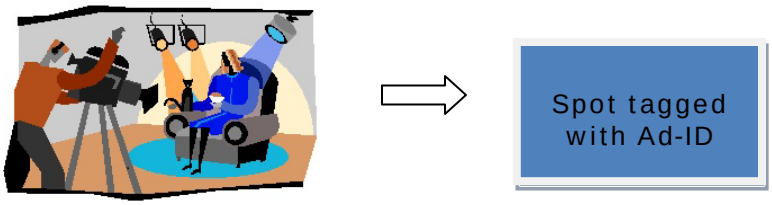
C.1 The Entire Advertising Ecosystem

The illustration below shows how all of the transactions that follow in this section fit together to form a workflow from top to bottom where the Ad-ID is utilized to ensure that the correct spot is utilized at all points.


agency and advertiser
1 pre-production
start campaign
book producer
develop campaign
buy airtime
B2
allocate identifier
ID
asset management
transactional workflow
2 production
shoot
order
B3
affadavit and invoice
B8
3 post-production
edit and finish
commercial instructions
B4
4 deliver
distribute
B5
commercial instructions carry identifier
broadcaster
media asset
Is the media ID the same as the traffic ID?
7 traffic
B6
play out schedules
as-run logs
5 ingest
6 transcode
8 automation
transmit commercial
B7
9 measurement
B2 Spot creation
B3 Order
B4 Agency traffic instructions
B5 Delivery to media outlet
B6 Management within media facility
B7 Scheduling
B8 Reconciliation and billing

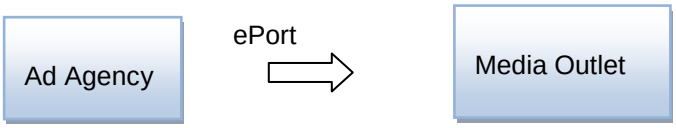
C.2 Spot Creation

When a spot is first created and shot, it is tagged with an Ad-ID to ensure it is identified properly throughout its lifetime.

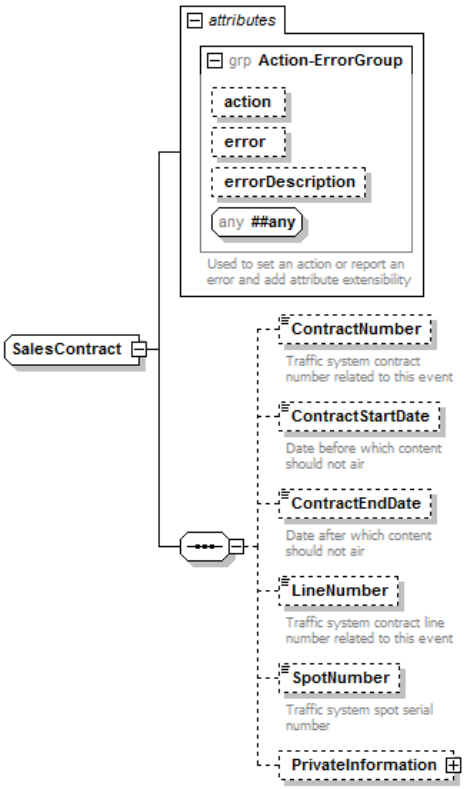


C.3 Order

An order is placed for an advertising campaign on particular media outlets. This often flows from the Ad Agency to the Media Outlet by way of a schema, such as that defined as part of ePort. BXF also has a SalesContract structure that allows for exchange of basic sales contract data.

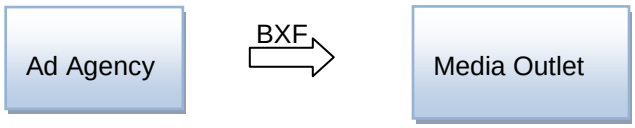


Below is an illustration of the portion of the BXF schema used for exchanging this type of data.

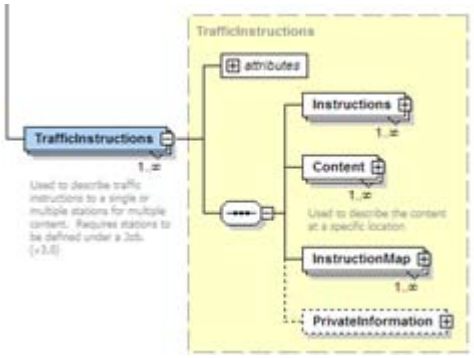


C.4 Agency Traffic Instructions

When the Agency decides when and where to schedule the spot, those “traffic instructions” are sent to each media outlet via BXF, with each spot identified with its Ad-ID.

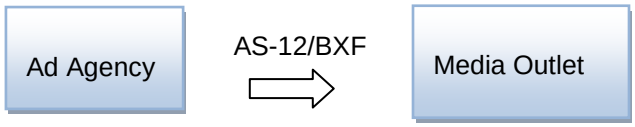


Below is an illustration of the portion of the BXF schema used for exchanging this type of data.

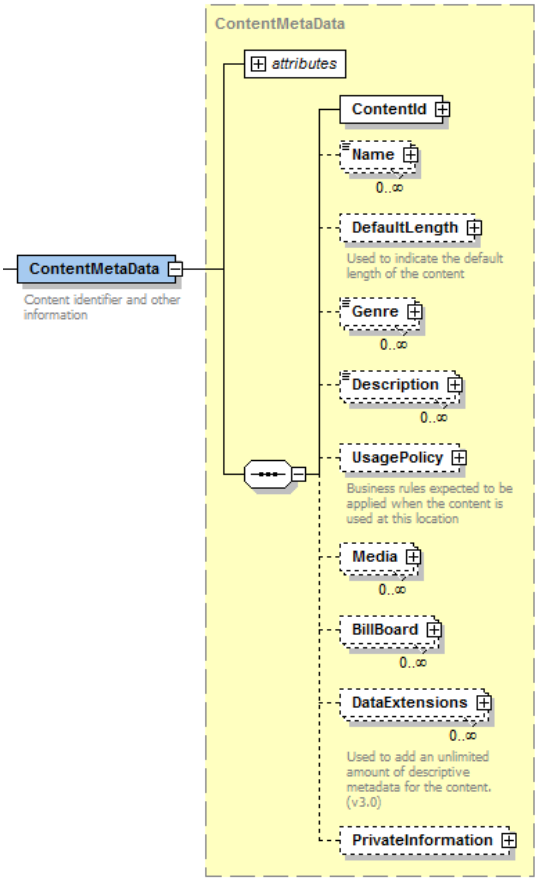


C.5 Delivery of Spot to Media Outlet Along with Metadata

When the actual spot essence is sent to each media outlet, AS-12 can be used, which provides a full digital slate, including the Ad-ID.

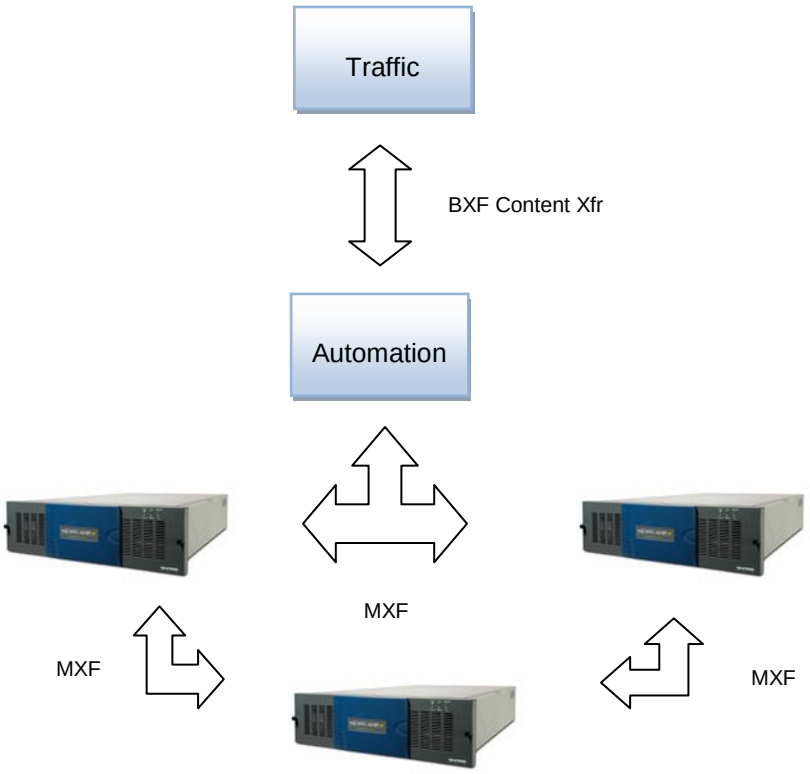


Below is an illustration of the portion of the BXF schema used for exchanging this type of data.

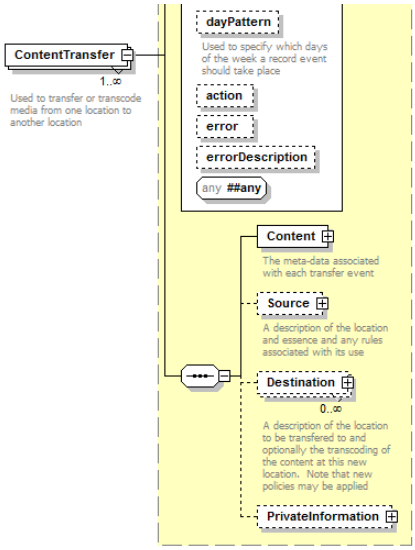


C.6 Management of Spot within Media Facility

One at the media facility, the spot itself must be moved from offline storage to online storage for playback. BXF's Content Transfer capability can identify the spot with its Ad-ID, along with the spot's source and destination, ensuring the correct spot is moved to the correct playback equipment, at the right time.

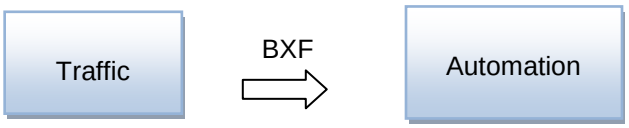


Below is an illustration of the portion of the BXF schema used for exchanging this type of data.

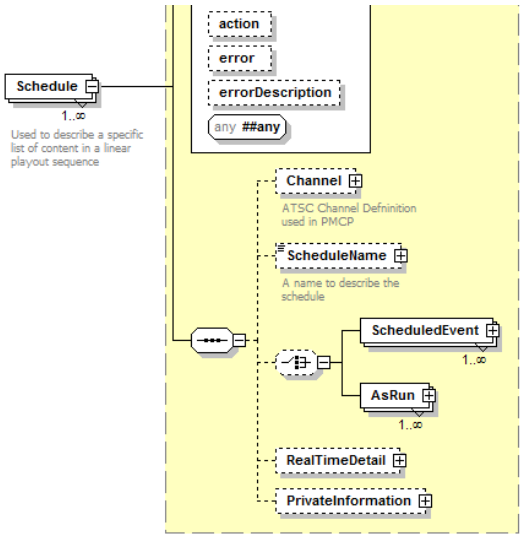


C.7 Scheduling of Spot

When the spot is actually scheduled to be played out at a particular time and particular playout channel, Traffic utilizes BXF's schedule capability to communicate this information, including the spot's Ad-ID, to playout automation.

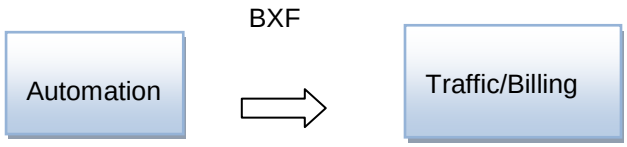


Below is an illustration of the portion of the BXF schema used for exchanging this type of data.



C.8 Reconciliation and Billing of Spot

Finally, when the spot has played out, BXF's as run capability is used to communicate that fact from playout automation back to the traffic and billing system, which in turn can invoice the ad agency.



Below is an illustration of the portion of the BXF schema used for exchanging this type of data.