BXF: IMPROVING BROADCAST OPERATION WORKFLOW

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Today’s Overview

1. Background
2. What Can BXF Do?
3. Why Use BXF?
WHO KNOWS WHAT “BXF” STANDS FOR?
BXF

- Yet another acronym

Broadcast eXchange Format

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WHERE DID BXF COME FROM?
In the beginning...

• In 2004, it was decided that we had a problem that had to be solved.

• Large number of proprietary interfaces between business and on-air systems
In the beginning...

- Milwaukee, WI, June, 2004 – formation of new SMPTE group to tackle this problem.
How To Fix It?

• Organize under respected international SDO
• Lock everyone (30+) in a room for a few days...
Plenty of “parents”

- Group quickly grew to around 150 members, representing 80 companies
- Broadcasters, vendors, others...
2008: Birth

• April Fool’s Day

• Collection of schema

• SMPTE 2021 – 640 pages!
What’s in SMPTE 2021?

- Schema Definition (XSD) Collection
  - Schedule
  - Asrun
  - Content
  - Content Transfer
  - Etc.
2009

• Recommended Practice – makes implementations simpler, more interoperable

• Partitioning of monolithic document
The BXF Document Suite

- 2021-0 – Roadmap to all BXF-related documents
- S2021-1 - General Information and Informative Notes
- S2021-2 - Protocol
- EG2021-3 - BXF Use Cases
- EG2021-4 - BXF Schema Documentation
- RP2021-9:2009 – Recommended Practice. Helps to ensure interoperable BXF implementations. Provides schema extensions, examples, guidance for various types of implementations
<?xml version="1.0" encoding="UTF-8"?>
<!-- Copyright 2012 Society of Motion Picture and Television Engineers. All rights reserved. -->
  <xs:include schemaLocation="bxfparentalrating.xsd"/>
  <xs:include schemaLocation="bxftypes.xsd"/>
  <xs:include schemaLocation="contentmetadata.xsd"/>
  <xs:include schemaLocation="eventdata.xsd"/>
  <xs:include schemaLocation="format.xsd"/>
  <xs:complexType name="ScheduledEvent">
    <xs:sequence>
      <xs:element name="EventData" minOccurs="0" type="EventData"/>
      <xs:element name="Content" minOccurs="0" type="ContentMetadata"/>
      <xs:element name="AlternateAudioContent" minOccurs="0" type="AlternateAudioContent" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
<element name="FerofData" minOccurs="0" type="FerofData">  
    <complexType>  
        <annotation>  
            <documentation>Specifies the data for the complete show or a single event</documentation>  
        </annotation>  
    </complexType>  
</element>  
<element name="Content" minOccurs="0" type="ContentMetadata">  
    <complexType>  
        <annotation>  
            <documentation>This is not expected to be present for commercials, program headers and break headers,  
                but is expected in all other cases</documentation>  
        </annotation>  
    </complexType>  
</element>  
<element name="AlternateAudioContent" minOccurs="0" type="AlternateAudioContent">  
    <complexType>  
        <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</documentation>  
        </annotation>  
    </complexType>  
</element>
An Easier Way...

HTML Schema Documentation
What Can It Do?

• What is all this useful for?
What Can It Do?

• Schedules and As Runs
  – Most commonly thought of area
  – Dynamic, near real-time
  – Comprehensive event structure
What Can It Do?

- Content Metadata

  - Exchange of metadata among systems that may not have direct access to content
What Can It Do?

• Content Transfer Instructions

  – Exchange informational or request messages for movement of content from source to destination
What Can It Do?

• Queries
  – SQL-like requests
  – Query/Response Structures
BXF 1.0 Little Known Features

• Configuration Exchange
  – Allows two or more systems to exchange their setup parameters
BXF 1.0 Little Known Features

• Format Exchanges
  – Allows systems to exchange program structure templates
Why???

- Key Question: Why would I spend the money it takes to put BXF into my operation?
Decreasing Costs

• How can this save broadcasters money?
Decreasing Costs

• Schedule area
Decreasing Costs

• Sales

  – Reduce makegood/credit situations

  💰 Less manual Traffic/Billing/Sales Mgmt contact

  💰 Less ad hoc Agency/Advertiser contact
Decreasing Costs

• Traffic

Formerly manual schedule change process now automated
  = time/errors saved

Increased clarity and detail in schedule executed by Master Control = reduced manual communication

Fewer weekend and overnight “what do I do?” calls

Reduced time spent dealing with rescheduling missed spots
Decreasing Costs

• Master Control

  More hands-off operation possible during the day = fewer or in some cases, no operators

  Ability to make decisions with enhanced metadata in off-hours = reduction in phone calls, etc.

  Not dealing with missing content or content discrepancies

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Decreasing Costs

• As Run area
Decreasing Costs

• Billing

- Reconciliation becomes significantly simpler and quicker

- Enhanced detail, particularly with secondary events (non-traditional revenue). Automates reconciliation and billing of these.

- Fewer discrepancies reduces discussions with Sales, Traffic
Decreasing Costs

• Content area
Decreasing Costs

- Ingest

  Closer integration with automation, traffic, programming, distribution.

  End result: more automated ingest possible.
Increasing Revenues

• How can BXF enable new/increased revenue for broadcasters?
Increasing Revenues

- Schedule area
Increasing Revenues

- Sales

  Ability to react to changing demand = opportunistic sales!

  Enabling of non-traditional revenue (non-linear, secondary events, etc.)

  Reduce makegood/credit situations = allow sales to focus on selling!

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Increasing Revenues

• Master Control

   Ability to make intelligent decisions with enhanced metadata in off-hours = more spots, less promos
Increasing Revenues

- As Run area
Increasing Revenues

- Billing

Quicker, more accurate as run reporting with fewer discrepancies = happier advertisers, more orders
Increasing Revenues

- Content area
Increasing Revenues

• Ingest

Automated ingest = ability to sell up to “last minute”
Summary

• BXF is a toolkit
  
  – One size does not fit all
  
  – Choose the features that you need...don’t use what you don’t need
  
  – It can reduce expenses, and open up new revenue
Looking Ahead
2012: BXF 2.0

• Backward Compatible

• Added some nice schema extensions
  • Live window (just aired, airing, about to air)
  • Re-use of house #s allowed
  • Program content secondary events
  • Multi-language support
2012: BXF 3.0

- SCTE 30/35/104/130 (Digital Program Insertion) support
- Audio Schema enhancements
- AFD and Bar Data structure
- Job Detail – applies to content, schedule, transfer, etc.
- Improved graphics support
BXF 4.0 Features?

- PMCP
- BXF-MXF Metadata Mapping
- Additional non-linear structure(s)?
- Need to communicate manual interventions in as run?
- What would you like to see?
QUESTIONS?
THANK YOU

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