

SMPTE ROADMAP

Broadcast Exchange Format — Roadmap for the 2021 Document Suite



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Document Roadmap

The SMPTE 2021 suite of documents specifies the Broadcast eXchange Format (BXF). This particular document (SMPTE 2021-0-2009) serves as a roadmap to the entire suite of 2021 documents, as well as other related files.

Documents in the SMPTE 2021 Suite

SMPTE ST 2021-1 – General Information and Informative Notes (Normative and Informative Sections)

This document serves as the base standard document for the 2021 suite. It includes a comprehensive set of definitions, discussion of system data flow, security, configuration, and a large set of informative notes. This document is critical to anyone implementing BXF, as it is referenced by all other documents in this suite.

The distribution of SMPTE ST 2021-1 also includes:

Schema Definition File Collection (2021-1a-2009 Schema.zip)

This is the collection of XSD files which are required to implement BXF.

HTML Schema Documentation (2021-1b-2009 Schema HTML.zip)

This is a visual representation of the entire BXF schema, including all XSDs. It provides a graphical, non technical view into the structure of the schema from top to bottom, including relationships between portions of the schema, as well as complete documentation of all schema attributes and elements.

SMPTE ST 2021-2 – Protocol (Entirely Normative)

This document specifically and exclusively deals with issues surrounding protocol as it relates to BXF. It addresses the nature of BXF TCP/IP connections, sending of messages, dealing with inactive connections, initiation of servers, timeout of services, encryption of BXF messages, message formats, as well as file-based transport.

SMPTE EG 2021-3 – Engineering Guideline – BXF Use Cases (Entirely Informative)

This document provides a rich set of use cases, illustrating the use of BXF in real-world scenarios, complete with XML samples. The use cases cover such examples as: schedule, dub order, purge order, record order, transfer order, content notification, queries, invoking schedules, heartbeat messages, as runs, playlist updates, and acquisition failures. This document is intended to assist those wishing to implement BXF in specific ways.

SMPTE EG 2021-4 – Engineering Guideline – BXF Schema Documentation (Entirely Informative)

This document provides documentation of each of the schema definition files included with 2021 (the XSDs). It covers all of the XSD files, and explains all of the attributes and elements contained in each.

SMPTE RP 2021-9 – Recommended Practice (Normative and Informative Sections)

This document was created to assist BXF implementers who have read the other documents in the 2021 suite to create interoperable implementations. It covers such topics as: wellformedness and validation, processing model, general conventions related to various messages, as well as transport protocol (both connection-based and file-based). Perhaps the most useful portion of this Recommended Practice is its enumeration of message types that are typically used by different types of applications. If you are implementing BXF for an automation system, for instance, you can go directly to that portion of the document to see what parts of BXF are specifically applicable to your system. The document then goes into each major subset of BXF (configuration, content, content transfer, format, and schedule) in detail. The document also includes annexes covering: supported extensions, message type usages, error handling, and protocol transport.