



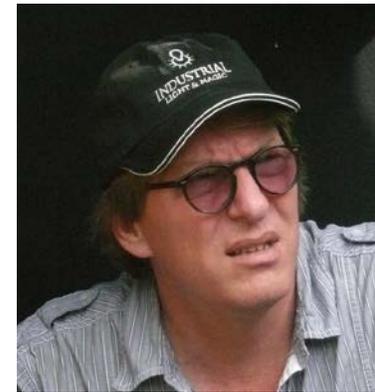
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SMPTE Update

23 February 2018



Bruce Devlin
Standards Vice President



Howard Lukk
Director of Engineering and Standards

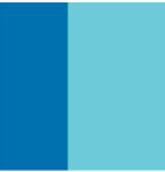
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Standards Review

An update from the standards community

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December 2017 Standards Committee Meetings

- Nine SMPTE Technology Committees and 12 subgroups met
 - 4-8 December 2017, in Santa Clara, California, USA
 - Hosted by Arista Networks
 - Meeting Outcome Report: <https://www.smpte.org/standards/meeting-reports>

4.5 days

62
Published
documents
In 2017

69 in the
room

Numbers

182 active
projects

2 streams

100+
attendees

ARISTA





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Standards Committee

Applications

20F Film

21DC Digital Cinema

24TB Television & Broadband

25CSS Cinema Sound Systems

Essence & Metadata (Content)

10E Essence

30MR Metadata Registry

Infrastructure & Media Management

31FS File Structures

32NF Network & Facilities Infrastructure

34CS Media Systems Control & Services

35PM Media Packaging for Interchange

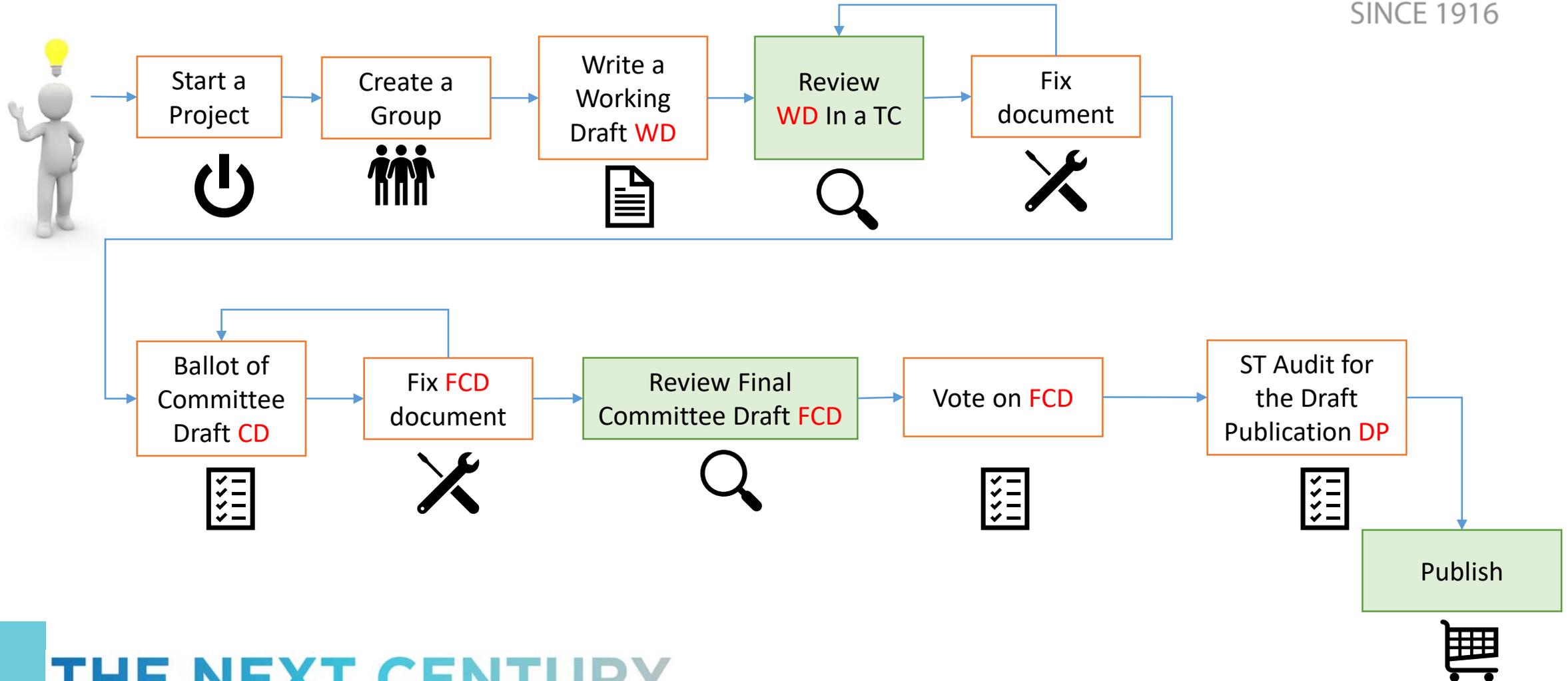
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Standards (or RPs or EGs)



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Documents From SMPTE

	ST	RP	EG	RDD	ER	SP
Defined, publicly available process	✓	✓	✓	✓	✗	✓
Contributors (SStandards CCommunity or MMember)	SC	SC	SC	SC	SC	M
Initiation Fee required?	✗	✗	✗	✓	✗	✓
Can be normatively referenced by a standard	✓	✓	✗	✗	✗	✗
Publicly viewable scope & progress	✗	✗	✗	✗	✗	✓
Published requirements and technology solution	✗	✗	✗	✗	✗	✓
Purchase document on IEEEExplore	✓	✓	✓	✓	✗	✗
Free document on SMPTE Website	✗	✗	✗	✗	✓	✓

Standards Webcasts



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- Audience asked What do you want from these webcasts?

1

An exhaustive list of activities?
(like this presentation)

2

More in-depth discussion of key topics?
(e.g. deep dive into SMPTE's standards work on timing)

3

Higher level overview of SMPTE's work in some area?
(e.g. overview of SMPTE's standards work in HDR)

4

Something else?
(let us know)

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Next Webcasts...



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1

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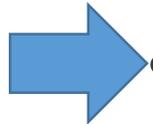
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SMPTE Technology Committees

- TC10E Essence
- TC20F Film
- TC21DC Digital Cinema
- TC24TB Television and Broadband Media
- TC25CSS Cinema Sound Systems
- **TC30MR Metadata and Registers**
- TC31FS File Formats and Systems
- TC32NF Network and Facilities Architecture
- TC34CS Media Systems, Control and Services
- TC35PM Media Packaging and Interchange



Volunteer 😊

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TC30MR

Metadata and Registers
Technology Committee

Chair: John Hurst

Chair: Mike DeValue



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- The application of the general scope as it applies to definition and implementation of the SMPTE Registration Authority, used to identify digital assets and associated metadata. Additionally, the common definition of metadata semantic meaning across multiple committees..*

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SMPTE Metadata Registers

Part of the [SMPTE Registration Authority](#)

Registers of metadata items identified by SMPTE Universal Labels – these are typically used in applications of Key-Length-Value (KLV) coding such as MXF audio-visual files.

Registers

Different versions of the Registers data are available along with web views of the data and online tools.

[Published](#)[Draft](#)[Development *\(members only\)*](#)

Submissions

A Submission is a request to alter the SMPTE Metadata Registers. Resources are available for creating and analysing Submissions.

[Essential Resources](#)[Extras *\(members only\)*](#)

Documentation

Draft technical documentation for the SMPTE Metadata Registers. The aim is to capture practical technical information about how the Registers (and related tools) are currently operated / designed.

[View Documentation](#)

Published Registers Latest Official SMPTE Metadata Registers Release

Publication Date: 2017-07

The authoritative sources of SMPTE Metadata Registers are the published XML files listed below.

All Registers are © 2017 SMPTE All rights reserved, but data may be reproduced in accordance with the embedded license.

The web views below should be regarded as purely informative – the XML documents are the canonical reference.

*Some of these webpages contain a lot of data – **please be patient as they load!** The webpages are **best viewed in Google Chrome.***

Labels Register [Labels Table](#) [Labels UL Hierarchy Tree](#) [Labels XML](#)

Types Register [Types Table](#) [Types UL Hierarchy Tree](#) [Types XML](#)

Elements Register [Elements \(by Group\) Table](#) [Elements UL Hierarchy Tree](#) [Elements XML](#)

Groups Register [Groups Table](#) [Groups UL Hierarchy Tree](#) [Groups Inheritance Tree](#) [Groups XML](#)

Online Tool – Generate Reg-XML from an MXF File
Powered by: Published Registers (above)

>>[Extra Submissions Resources](#) are also available (members only)

About Submissions

A Submission is a request to alter the SMPTE Metadata Registers. All edits to the Registers (both alterations and additions) are handled as Submissions. For more information on the technical requirements and the process please refer to the Documentation.

[View Documentation](#)

XML Schemas for Submissions

Each Submission contains one or more Registers XML files that expresses the changes being requested. All Submissions must conform to the XML Schemas provided here.

[Labels XSD](#)

[Types XSD](#)

[Elements XSD](#)

[Groups XSD](#)

Submission Templates

These templates provide a starting point for creating certain Submissions.

[Submission Templates](#)

Registers Snapshot for Editing

Submissions can contain additions (new entries) and alterations (changes to existing entries). If you want to make an alteration to an existing entry then download this Registers snapshot, edit the relevant XML file and include it in your Submission.

Detail: this snapshot does not contain any of the temporarily merged-in Submissions that are present in some of the other Registers XML files available from this website and so is suitable for editing. The content will be the same as that in the Draft Registers unless the Registers are "closed" and there are outstanding "accepted" Submissions (in which case these outstanding "accepted" Submissions cannot be permanently "merged" in the management system yet and so will not appear in this snapshot but will appear in the Draft Registers).

[Download Registers Snapshot for Editing](#)

Upcoming Standards Meetings



- March 12-15, 2018
 - White Plains, NY, USA – at new SMPTE Headquarters bldg.
- June 18-21, 2018
 - Ryerson University, Toronto, Canada – Hosted by SMPTE Toronto Section
- September 19-22, 2018 (Immediately following IBC)
 - Geneva, Switzerland – Hosted by EBU
- December 03-06 (maybe 07), 2018
 - San Francisco, CA, USA – Hosted by Dolby Labs

Meeting Outcome Reports



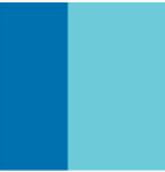
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- To learn more about the Standards activities see:
<https://www.smpte.org/standards/engineering-committees>.
- To download the most recent meeting outcome report:
<https://www.smpte.org/standards/meeting-reports>
- For standards participants – see the master calendar:
https://kws.smpte.org/higherlogic/ws/groups/stds_comm/calendar



Standards in Pictures

An update from the standards community

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Showcase reveals widespread desire for IP

By George Jarratt

The hundreds of people who have flocked to the IBC IP Showcase, and have sat attentively through the many presentations, have seen massive vindication to the political will behind the gathering of SD vendors.

"Political will, passion or incentive, this is a really big step for the industry," said AMS chairman Mike Cronk. "The sessions have been overflowing, and the people coming have been senior management and engineers interested in IP and evaluating it. There is a widespread desire for moving to IP."

The big draw is the interoperability based around SMPTE ST 2110. "Whether it be flexibility, scalability or resilience – all the things IP brings – when



people see that in action that's when the pendulum swings, and that pendulum is really moving now," said Cronk.

"With ST 2110 there is going to come a time when using it is as old hat as SD, so that piece of IP will change over time. The JT-NM roadmap gives us a long-term

vision for getting to cloud fit and dematerialisation, and we have to do that with a standardised and open spec-based approach," he added. "ST 2110 in terms of IP transport is foundational but there is a lot of work to do."

The message is that the technology shaping

interoperability will evolve, so gathering the clans for future showcases remains vital. Cronk, like many here, wants to see a standardised way within 2110 of using compressed video over RTP. "Some way of doing compression is totally vital," he said.

Inside

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CHYRON-HEGO
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Sports Sunday
 AI is set to change sports production – and sooner than you may think
 Page 8

Monday night magic
 Experience MR for the Planet of the Apes in Dolby Atmos and Dolby Vision tonight in the Auditorium
 Page 8

Object-based audio
 Roger Wilks of the EBU explains how OMA will facilitate the 'produce once, consume in all environments' model







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Membership

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Membership is strong

UK Region grows - adds 2nd Governor

Many Section-produced conferences and events



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Florida Technical
Conference (Dec)

Toronto
Bootcamp
(June)



(May)

Montreal
Bootcamp
(June)



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<https://www.smppte.org/local-sections>

Engaging the Next Generation



An event for students

Featuring:

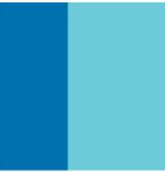
- Technology education
- Hands on workshops, demos and facility tours
- Extensive networking and mentorship opportunities including topic-driven “HPA-style” roundtables.

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Events

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HPA Creative Tech UK
27 June
Ham Yard Hotel
Soho, London

HPA
CREATIVE TECH UK

Navigating the
Frontier of Media
and Technology

📍 27 JUNE 2018 // HAM YARD HOTEL // SOHO, LONDON

Presented by
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Security
 Production
 Reality TV
 On Set Tech
 Artificial Intelligence

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HPA
 CREATIVE TECH UK

Navigating the
 Frontier of Media
 and Technology

27 JUNE 2018 // HAM YARD HOTEL // SOHO, LONDON

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HDA
CREATIVE TECH UK

Navigating the
Frontier of Media
and Technology

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SESSION SCHEDULE

REGISTER TO ATTEND

myNAB Show PLANNER

FUTURE OF CINEMA CONFERENCE

Saturday, April 7-
Sunday, April 8, 2018

Future of Cinema sessions open to these passholders:

ET@2018



June 13-14 2018





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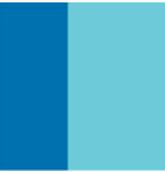
smpte2018.org

22 - 25 October @ The Westin Bonaventure Hotel &



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Learning Resources

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IMF ESSENTIALS: WHAT YOU NEED TO KNOW



ESSENTIALS OF IP MEDIA TRANSPORT FOR BROADCASTERS





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[EDUCATION & EVENTS](#)

[PUBLICATIONS](#)



UNDERSTANDING SMPTE ST 2110 VIRTUAL COURSE



[SMPTE IS LOOKING FOR A DIRECTOR OF STANDARDS DEVELOPMENT - CLICK HERE TO VIEW THE POSITION AND APPLY](#)



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NAVIGATING THE UHD ECOSYSTEM



Course Length: 3 Weeks



CANCELLATIONS



SMPTE IS LOOKING FOR A DIRECTOR OF STANDARDS DEVELOPMENT - CLICK HERE TO VIEW THE POSITION AND APPLY

Youtube

- @smpteconnect



SMPTE 2017: Engineering a Live UHD Program from the
68 views • 3 days ago



SMPTE 2017: Exploring Image Corruption in the
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SMPTE 2017: Core Color Rendering Algorithms For
41 views • 3 days ago



SMPTE 2017: Hitting the Mark - A New Color
90 views • 3 days ago



SMPTE 2017: NABA DPP - Specifications, Standards,
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SMPTE 2017: Is Seeing Still Believing?



SMPTE 2017: Automating Digital Asset Production with
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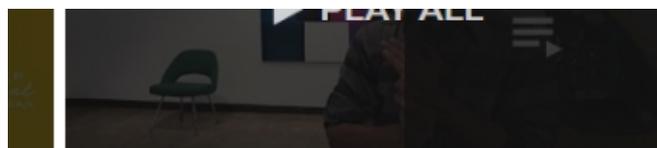


SMPTE 2017: Display Interfacing 2017 - At The
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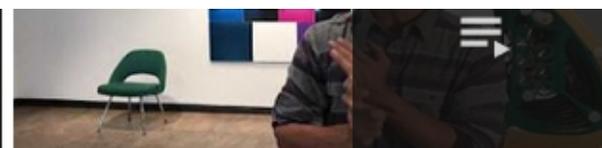
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Youtube

- @smpteconnect



Favorites



Liked videos



SMPTE 2017 Symposium



2017 Student Film Festival



SMPTE 2017 Awards Gala



Bruce's Shorts



SMPTE 2017 Show Floor



2017 Fellows Luncheon



NAB 2017



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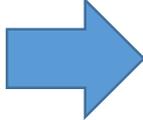


12



14



 **And Finally**

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Director of Standards Development



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SMPTE Director of Standards_2018_FINAL.pdf - Adobe Acrobat Reader DC

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445 Hamilton Avenue, Suite 601
White Plains, NY 10601
www.smpte.org

Job Profile

Director of Standards Development

January 2018

The Role

Director of Standards Development, located at the Home Office in White Plains, NY

The Organization

For more than a century the Society of Motion Picture and Television Engineers, or SMPTE, have been leaders in media and entertainment technology, from the HD and UHD (4K, 8K) TV. Since its founding in 1916, SMPTE has received an Oscar® and multiple Emmy® Awards for its work in advancing

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<https://www.smpete.org/store/product/100-years>

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Thank You

Questions?



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