



What is happening at SMPTE?

# 3DTV STANDARDS

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Chair, SMPTE 10E40 Working Group  
On  
3D Home Master



# Stereoscopic TV Standards

SMPTE 10E40 Working Group  
On  
3D Home Master

## Progress and Status Update



# What is SMPTE 10E40WG?

- Preceded by a *Task Force* to study the issue
  - Group formed August 2008
  - Report published April 2009
  - 151 participants
  - Recommended that SMPTE create standards for a “3D Home Master”
- First SMPTE *working group* to create 3DTV standards
  - 132 members from content creators, broadcast equipment manufacturers, distribution providers, consumer electronic manufacturers and others
  - Kickoff meeting November 2009
  - This work *does not include distribution formats and technologies*, but is aware of them



# Project Scope

## From the Work Statement:

- Generate specifications for the 3D Home Master for the carriage of 3D content between mastering facilities and the ingest facility of a distribution system.
- The specifications shall meet the requirements generated by the *SMPTE Task Force on 3D to the Home*.
- Additional requirements may be identified and addressed, if the Working Group considers there to be a critical gap in the requirements.



# Subgroups

- Four Ad Hoc Groups report to the working group
  - Image Format – what are the allowed characteristics for the image?
  - Metadata – what descriptive data is required or optional? What is the schema?
  - Subtitles and Captions – What is needed for these downstream features?
  - Graphics Overlay – What is needed for downstream bugs, and set-top/TV graphics to be properly inserted?



# Hot Topics

- What is a “Master” from the viewpoint of the Cinema industry and the Broadcast industry?
- Compression in the master?
- How might the Z axis be conveyed in production, and should it be included in the master?



# 3D Frame Compatible

## What is “Frame Compatible” distribution?

Fitting two (left eye, right eye) images into the existing distribution for monoscopic TV

- Top and Bottom – half vertical resolution per eye
- Side by Side – half horizontal resolution per eye
- Frame Sequential – half temporal resolution per eye
- Quincunx (checkerboard) – “balance of H&V loss”
- Column or Row interleaving – similar to TaB or SbS

Does this work belong in 10E40WG?



# Goals

- Draft documents from the Ad hoc groups to the Working Group by summer of 2010
- May be published in “versions” to facilitate early publication
- Single SMPTE standard number with “dashed” subparts for each Ad hoc group



# Thank You

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