

# Essence (10E) **Al Barton, Chair; Rick Ackermans, Co-chair**

## OVERVIEW

The technology committee on Essence deals with the general scope as it applies to electronic capture, generation, editing, mastering, archiving, and reproduction of image, audio, subtitles, captions, and any other master elements required for distribution across multiple applications.

## ORGANIZATION

The committee currently has 4 Working Groups, 16 Adhoc Groups, and 1 Study Group:

- WG: Fixed Pixel Matrix Reference Displays (Dave Bancroft)  
(This is to define standards for broadcast facility use for non-CRT displays)
- WG: Safe Image Area Working Group (Bill Miller)
- SG: Digital Cinema Safe Image area (Howard Lukk)
- AHG: Revision RP 218 Specifications for Safe Action and Safe Title Areas for Television Systems Revision (Alan Lambshead)
- WG: Archive Tape File System (Merrill Weiss)
- AHG: Revision of 352: Video Playback Identification for Digital Interfaces (John Hudson)
- AHG: Audio Track to Channel Mapping (Steve Lyman)
- AHG: Correct and Update SMPTE 125M to Include 4:2:2 and 4:4:4 Signal Formats for 525 and 625 Line Systems (Peter Dare)
- AHG: VC2 Video Compression Standard (Jim Wilkinson)
- AHG: Revision EG 43 Implementation of 608 and 708 Captions (Graham Jones)

- AHG: Acquisition Metadata Set for Video Camera Parameters RDD (Paul Gardiner)
- AHG: Low Complexity High Fidelity (LCHF) Scalable Video Coding (Michael Dolan)
- AHG\_ Camera Acquisition Metadata Study (Dave Bancroft)
- AHG: Revision of S2036-1 UHDTV (Kohji Mitani)
- AHG\_2048\_Image\_Format\_Mapping (Peter Dare)
- AHG: 2048/4096 Production Formats (Peter Dare)

The following are groups dealing with 3D mastering for the home:

## WORK IN PROGRESS

The committee is currently dealing with a wide range of new and ongoing broadcast and motion picture issues including:

- Revisions to safe area standards for broadcast and motion picture
- Video compression codec standardization
- Audio channel mapping standardization
- Home 3D image mastering
- Updates to closed caption standards
- Ultra-high-definition standardization
- WG\_3D\_Home\_Master
- AHG\_3D\_Home\_Master\_Image\_Content (Walt Husak)
- AHG\_3D\_Home\_Master\_Graphics
- AHG\_3D\_Home\_Master\_Subtitles\_and\_Captions (Brad Collar)
- AHG\_3D\_Home\_Master\_Metadata (Karen Broome)

REPORTS FROM THE SMPTE TECHNOLOGY COMMITTEES



**Al Barton** has spent 29 years as a technologist in production, post-production, and manufacturing for television and feature films. Most recently, he worked in production/post-production and distribution of feature films for Sony Pictures. He is chair of SMPTE TC 10E Essence and the Mastering WG under 21DC TC. He participates in the International Standards Organization (ISO), the International Telecommunications Union (ITU), and the Inter-Society Digital Cinema Forum (ISDCF) committees as well as the Workflow Subcommittee of the American Society of Cinematographers (ASC) Technology Committee. Barton also participates in the Academy of Motion Picture Arts and Sciences' Image Interchange Framework (AMPAS IIF) committees and was a key member of Digital Cinema Initiatives (DCI); he helped create the digital cinema specification.



**Rick Ackermans** has worked in the broadcast industry for more than 25 years. Prior to co-chairing 10E he was chair of the V16 committee on Television Recording and Reproduction Technology. Ackermans is currently a member of the SMPTE Board of Governors. In addition, he is on the Board of Directors of the Video Services Forum and is a member of the Audio Engineering Society (AES).

Ackermans has been employed by Turner Entertainment Networks for 20 years, where he is currently an engineering technology fellow, dealing with technical standards and emerging technology issues.