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ULTRA HD FORUM RELEASES PHASE A GUIDELINES V1.5

IBC SHOW, Amsterdam – September 14th, 2018 – The <u>Ultra HD Forum</u> is the global organization promoting the industry's proven best practices for the delivery of immersive ultra-high-definition (UHD) experiences. Technologies include high dynamic range (HDR), wide color gamut (WCG) and High Frame Rate (HFR) for images, personalized next generation audio (NGA) and Content Aware Encoding (CAE).

The Ultra HD Forum (UHDF) **today released** a major Phase A Guidelines update < https://ultrahdforum.org/quidelines/>. Version 1.5 is the fifth public release and reflects another intense year of collective industry experience. Key changes from version 1.4 are:

- 1. Descriptions and workflow diagrams of four "real world" deployments of UHD / HDR services for marquee television events (major sports tournaments, parades, etc.).
- 2. Synergies between Phase A and Phase B technologies. (Phase B technologies are independent, incremental additions to the foundation of Phase A technologies.)
- 3. Important new standards that support Phase A workflows, including SMPTE ST 2108-1 for carriage of HDR metadata over SDI interfaces.
- 4. Clarification between "HDR10" and "PQ10" to ensure alignment with other new SDOs' specifications such as SCTE's.
- 5. More detail about two-step forensic watermarking methods.

Ultra HD Forum Phase A guidelines were first published in 2016, and include:

- End-to-end workflows for UHD services
- Resolutions of 1080p (with HDR) and 2160p
- HDR / WCG (PQ10, HLG10 and HDR10)
- Channel-based immersive audio

Note that Phase B Guidelines, first published in 2018, introduce UHD enhancements and enablers such as:

- Dual-layer HDR technologies
- Dynamic HDR Metadata systems (Dolby Vision & SL-HDR1)
- High Frame Rate (100/120 FPS)
- Next Generation Audio (Dolby AC-4 & MPEG-H Audio)
- Content Aware Encoding

Phase B Guidelines show how these technologies can be implemented in a way that is backward compatible with Phase A decoders, which makes them attractive to operators.

About the Ultra HD Forum

Formed in 2015, the Ultra HD Forum is the global organization responsible for promoting market adoption of Ultra HD by defining industry best practices for the phased introduction of the wide set of technologies facilitating the next-generation television experience. The organization facilitates interoperability testing and collaborates with industry standards bodies to align standard development activities. A list of member companies and additional information about the organization is available at http://ultrahdforum.org and by following @UltraHDForum on twitter.

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