

2022 FUTURES PARK EXHIBITORS

6P Color

6P Color and Baylor University have

developed a colorimetric approach

to processing multi-primaries as a full color range (FCR) system from the camera lens to the viewer's eyes. Instead of using RGB (or YCrCb) signals, the FCR System uses a set of three image signals, Yxy. The Y signal contains the luminance of the pixel, the x and y signals represent color coordinates based on the CIE 1931 standard observer color response data. To demonstrate how the FCR system can support any number of displays, real content shot with conventional digital cinema cameras on a dvLED cabinet, composed of 4 primaries is presented. The demonstration compares the original content using 4 primaries (Red/Green/Blue/Cyan) as well as the standard RGB primaries. 6P's FCR system is the next step in expanding the color space available for cinema, sports, drama, scientific and industrial motion imagery.



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8K Association

The 8K Association is dedicated to expanding the 8K ecosystem. To that end, we will field three demonstrations.

The first will focus on showcasing the visual quality differences between 4K and 8K content to validate the value of 8K capture, production and display. The second will show how 8K live production can now be done efficiently in the cloud, while the third will demonstrate the full 8K live production and distribution workflow employed during the Tokyo 2020 summer Olympics. The 8K Association has a number of projects and guideline reports planned for 2022, so come by to learn more.



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AAIS

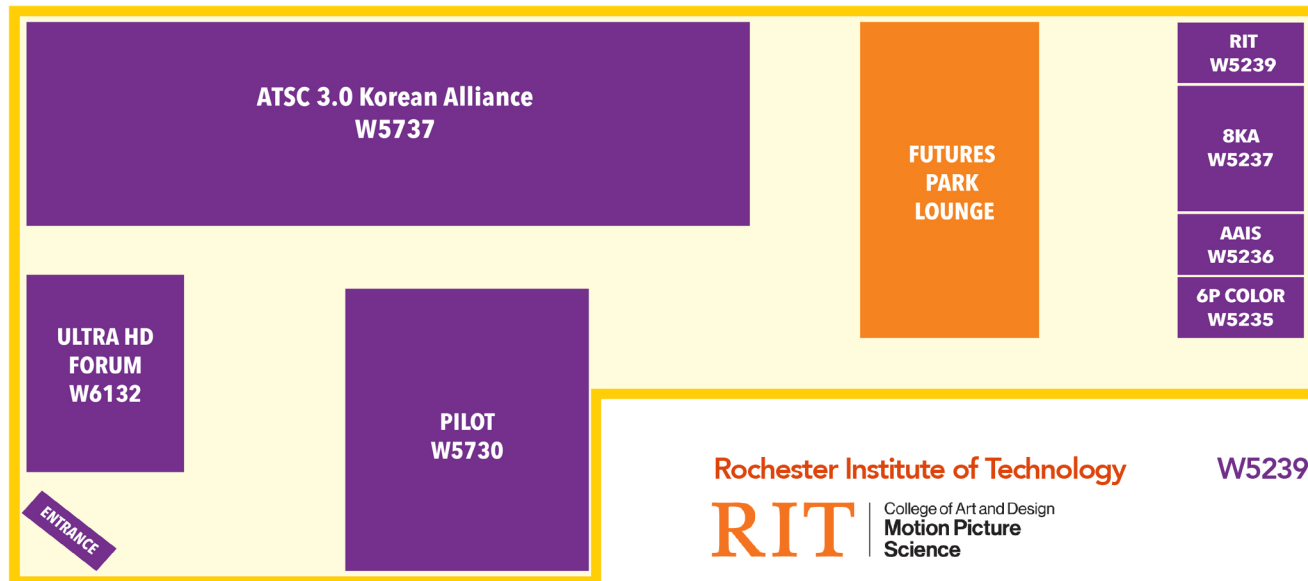
The Addressable Asset Identifications Standard (AAIS)

will be demonstrated, which can be used for ATSC 3.0 Dynamic Ad Insertion. AAIS utilizes EIDR and Ad-ID identifiers to facilitate content replacement. Demo participants include Freewheel, WideOrbit, EIDR, Ad-ID, TitanTV, Comscore, NPG, Digital Broadcast, S&T, and UniSoft. UniSoft provides the AAIS delivery chain including:



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- MediaFire G5 from Digital Broadcast, Inc.: Inserts SCTE-35 triggers marking ad placement opportunities.
- ATEME TITAN Live encoder: Generates multi-period DASH with Xlinks URL.
- S&T's ATCaster broadcast stream generator: Outputs ROUTE/MMT sessions to the Enensys SmartGate Scheduler and on to the transmitter.
- S&T's Broadcast Application: Resolves Xlinks, calling the Freewheel Ad Decision System to place alternative content.



ATSC 3.0 Korean Alliance

W5737

RAPA Korea Radio Promotion Association

The Korean Radio Promotion Association (RAPA) has successfully responded to challenges of the ATSC 3.0 Next Gen broadcast industry in Korea and continues its course to offer valuable resources for the entire Next Gen TV ecosystem. Dozens of projects involving more than 40 companies have taken place at RAPA's Next Gen TV testbed in Jeju Island, South Korea. Advanced emergency alerting, precise location data, cloud based ATSC 3.0, distance learning and other services are among the Next Gen TV applications that have been trialed there. RAPA presents several ATSC 3.0 advanced services powered by the Korean Alliance in Futures Park.

PILOT

The PILOT booth will showcase an Android Automotive Broadcast Radio Interface as well as ATSC 3.0 technologies including broadcast applications running on commercially available NextGen TV sets. The two Next Gen TV applications on display were created by the PILOT Next Gen TV Fellowship and Graham Media Group. Additionally, the booth will provide a Hybrid Scalable High Efficiency Video Coding (SHVC) demonstration.



W5730

Rochester Institute of Technology

W5239



College of Art and Design
Motion Picture
Science

The exhibit demonstrates RIT's Motion Picture Science capstone research projects. This year's research focuses on HDR/SDR workflows, LED wall and camera calibration, and machine learning for motion-capture data cleanup. The exhibit allows RIT students to present their research, interact with potential employers and alumni, and learn about other relevant research being presented in Futures Park. The exhibit also presents some of the research and work being done on virtual production at RIT's MAGIC Spell Studios.

Ultra HD Forum

W6132

The Ultra HD Forum presents seven demonstrations, including three demos on Advancing Ultra HD Delivery:



- Next Gen codecs in UHD HDR using VVC and AV1
 - Efficiency improvements through dynamic resolution for ATSC3.0
 - Serial ADM for Next Gen audio
- Two demos on Producing Ultra HD:
- Addressing HDR color management and interoperability challenges
 - Testbed demonstrating HDR over ST 2110

And two demos on Consuming Ultra HD:

- ATSC past, present and future
- Ensuring SDR content quality in an HDR world

Primary contributors to these demos are Ultra HD Forum members Ateame, Dolby, Fairmile West, Fraunhofer, Harmonic, InterDigital, LGE and NBCU.

See the future of broadcasting in a single venue at Futures Park.