



\ ACADEMY COLOR ENCODING SYSTEM \

ACES Roundup

HPA Tech Retreat
Thursday, February 24, 2022
Academy Science and Technology Council

\ ACESCentral.com \

Agenda

Recent ACES Progress

Case Study – StEM2

Announcements & Wrap-up

Questions





A COMCAST COMPANY



Universal Pictures Announcement

Delivery specs will include ACES v1.3 deliverables in Q4 2022



Recent ACES Progress

Alex Forsythe

Technical Lead, ACES Project Committee

Director - Image Engineering, Academy of Motion Picture Arts & Sciences



ACES Working Groups

Lots of work has been done recently

ACES Metadata File (AMF) Implementation Working Group

- Revisions to AMF specification based on production feedback
- Finalized new AMF implementation guide

Common LUT Format Implementation Working Group

- Minor correction to CLF spec's implementation of ASC-CDL math
- Finalized a new CLF implementation guide and validation toolset

ACES Working Groups

Gamut Compression Implementation Working Group

- Finalized new Gamut Compression implementation guide

Input Transforms Implementation Working Group

- Achieved consensus on exposure normalization recommendations (document pending)
- Prototype IDT matrix calculation reference implementation (final calculator pending)
- Progress on recommendations for calculation of IDT for “black box” cameras

ACES Working Groups

Output Transforms Architecture Working Group

- Refinement of requirements for Output Transforms in On-Set, VFX, Mastering and Archival use cases.
- Established 3 lines of development and testing for candidate ACES 2.0 Output Transforms
 1. Extension of ACES 1.1 HDR Output Transform Model
 2. New ground up RGB model
 3. New model based on ZCam Image Color Appearance Color Science Research

ACES Working Groups

OpenEXR Compression Implementation Working Group

- Just kicked off
- Goals : Establish best practices for the use of OpenEXR compression in ACES-based workflows

New and existing documents
docs.acescentral.com





Case Study — StEM2

Joachim Zell

Vice Chair, ACES Project Committee

Head of HDR Content Workflow, Barco

The Mission

The Mission is a fast-paced high-octane short film following three scientists in search of a mysterious ore. As they excavate the glowing element from within a deep cave, the forces of evil close in to thwart their efforts.

The scientists get their prize and are immediately pursued by the darker forces requiring a fast and fantastic escape.



Workflow on StEM2

- AlexaLF 4.5K

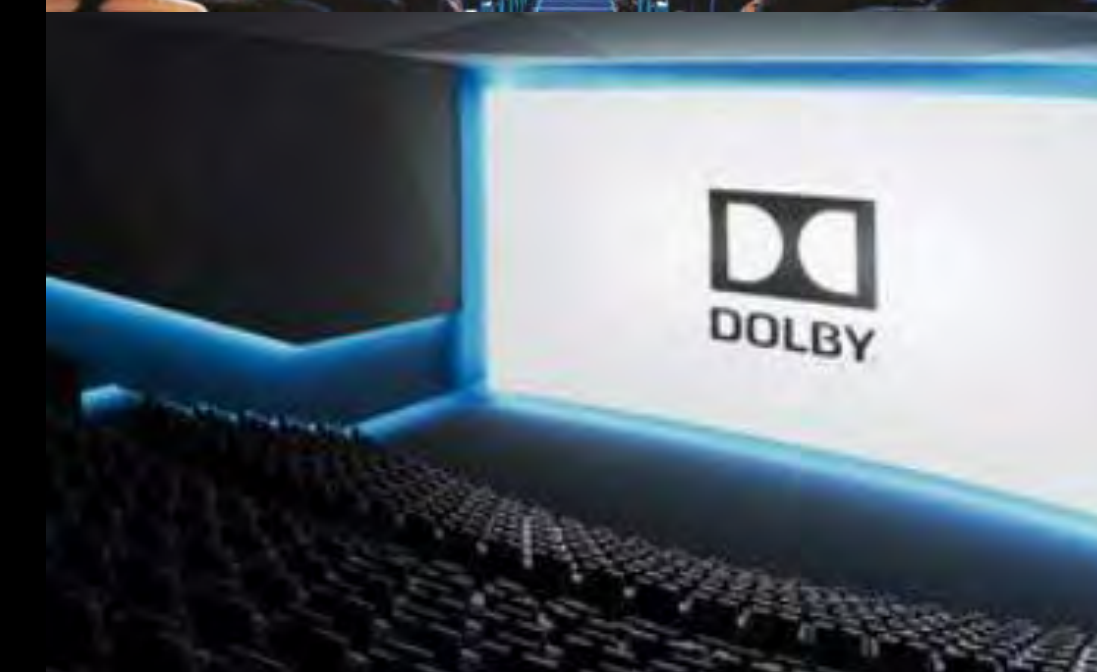
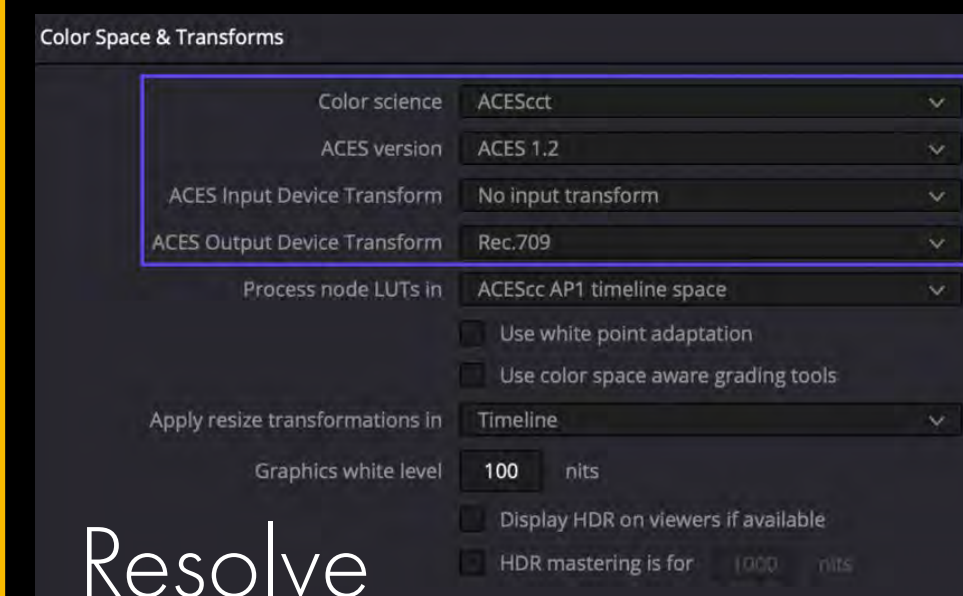
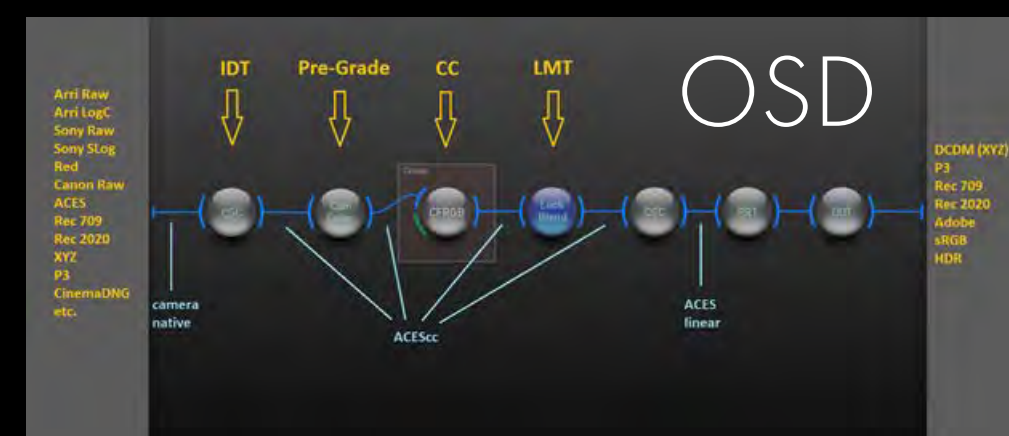
- Sony Venice 6K

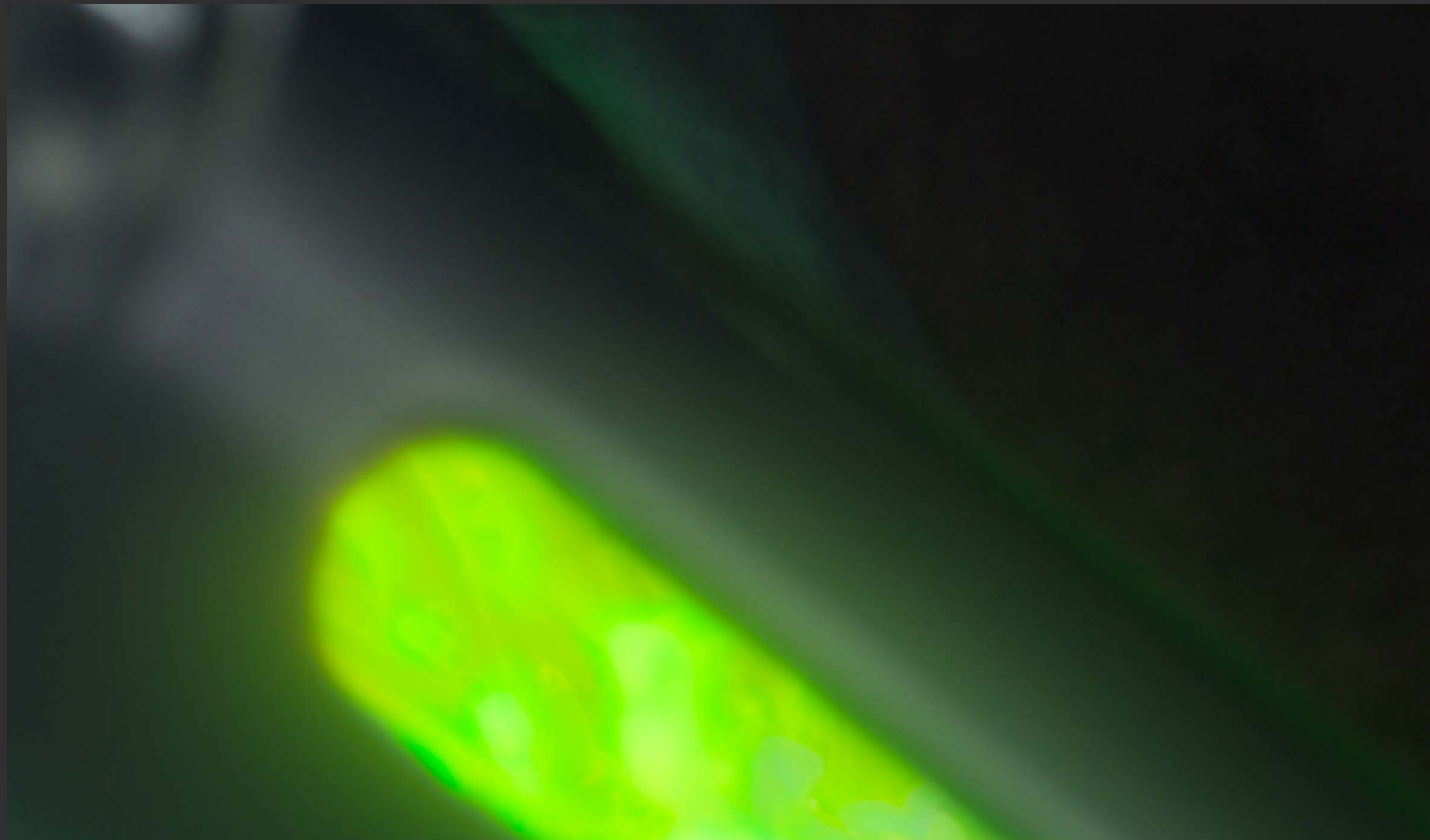
- Red Monstro 8K

- BMD 12K

- DJI Drone

- Canon EOS C700



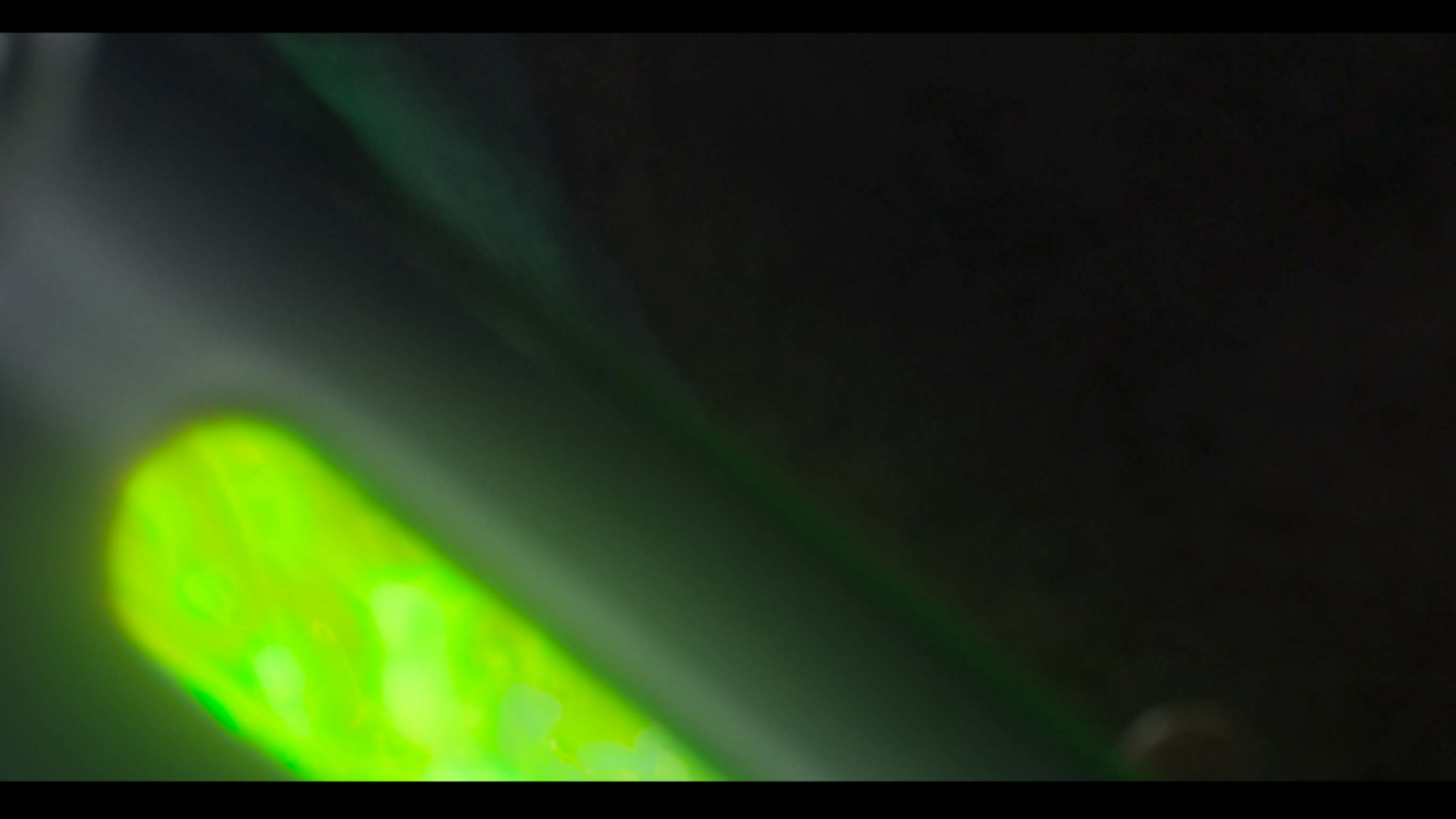


StEM2 Gamut Compression

cameras & VFX











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ORE DATA EXTRACTION

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Announcements & Wrap-up

Annie Chang

Chair, ACES Project Committee

VP, Creative Technologies, Universal Pictures

Looking Forward

ACES 2.0

Slated for launch in 2022



Looking Forward

ACES Logo Program

- Program task force being formed
 - Chair – Marc Zorn, Content Protection and Production Security, Marvel Studios
 - Vice Chair – Daniel de La Rosa, VP Post Production, Sony Pictures Entertainment
- Encourage consistent, high quality ACES support and interoperability in products and this year to service providers



PRODUCT PARTNER



SERVICE PROVIDER



How can you benefit?

Studios Write the ACES option into your delivery specs for a standardized, widely supported file formats.

Product Companies Implement ACES per the latest specs so filmmakers can successfully use your tools in ACES color-managed workflows. Earn the ACES Logo so filmmakers know you went the distance for them.



How can you benefit?

Service Providers and Facilities Join the ACES Logo Program Task Force and help extend the program for your customer's benefit.

Content Creators Use ACES on your next project and take advantage of countless expert-hours in service of your creative vision, higher fidelity images and standardized deliverables.

Everyone Join in at ACESCentral.com and be part of a vibrant, innovative, and supportive community!



Questions

