



\ ACADEMY COLOR ENCODING SYSTEM \

ACES Architecture Technical Advisory Council Meeting

Wednesday, May 19, 2021

\ ACESCentral.com \

Expected outcomes

TAC is updated on progress of ACES 1.3 and 2.0 development

TAC is updated on process changes

TAC provides feedback on topics including:

- Output Transforms Working Group issues/action items/blockers/successes
- Use or issues with ACES in their 'network'

News

TAC process revision

Industry workflow test materials shoot

- AMF testing
- CLF testing
- IDT development footage, particularly 'blackbox' cameras
- Whatever else working groups might need it for ...

ACES 1.3 and the road to ACES 2.0

ACES 1.3 and the road to ACES 2.0

ACES 1.3 - Gamut mapping Algorithm

- Release candidate 1 - March 1, 2021 - COMPLETE!
- Release candidate 2 - April 1, 2021 - COMPLETE!
- Final Release - April 30, 2021 - COMPLETE!

ACES 1.3 is now available for manufacturers to integrate into their products

ACES 1.3 and the road to ACES 2.0

ACES 2.0 - Late 2021 / Early 2022

- Key Working Groups
 - Output Transforms - On Target-ish ... lots of hard questions
 - IDT Implementation - On Target

ACES 1.3 and the road to ACES 2.0

Additional Documentation and Toolsets

- ACES 1.3 timeframe
 - AMF user guide and tools - On Target
 - CLF user guide and tools - On Target
 - IDT exposure guidelines and reference implementation - On Target
 - Gamut Mapping user guide and implementation recommendations - On Target

ACES 1.3 and the road to ACES 2.0

Additional Documentation and Toolsets

- ACES 2.0 timeframe
 - Output Transforms Documentation - In Progress
 - Compression best practices - Starting soon ... still

Working Group Strategic Discussion–
Issues/action items/blockers/successes

Output Transforms Architecture Working Group

Co-Chairs : Alex Fry (ILM) & Kevin Wheatley (Framestore)

Discussion

Concerns

- Architecture
- Timeline
- Effort and Community Contributions

Architecture

Assorted points of view:

- Need a fixed standard to enable color management and archive
- Needs to fall off the truck looking beautiful
- Needs to do something objective even if it doesn't fall off the truck well. Put the beauty in an LMT.
- Need a standard transform with knobs to allow for creativity
- Need a set of standard transforms
- Need no standard transform (because standards restrict)

Architecture

- Many things are wanted - but still not entirely clear if they're in conflict with each other
- Conflicting requirements?
 - Photographic highlight roll-off vs CG-ish full brightness and chroma (ex. next slide)
 - Support rendering intent - optimize for display, appearance match, etc.
 - Does this make using a single LMT impossible?
- Do we build a toggle? And, if we do, won't people demand more?
- Does having one or more toggles break a core tenet of ACES?



ACES



ACES - Hue Preserve



Architecture - Bigger Picture

- What *is* an ACES project? What is *not* an ACES project?
- If we can define what is definitely *not* ACES, then we can have a 'buzzer' to press whenever those topics resurface. Avoid distractions.
- Knowing what we most need to deliver can help this group define and constrain its deliverables

Architecture - Consensus Items?

- The rendering should aim to provide 'color science in a box' as that serves a large portion of the ACES audience
- However, the rendering should not be so finished so as to preclude expert users from substituting it
- Do *not* want a return to 'black box' LUTs
- New versions must address the objective criteria current version is missing
- Ideally, subjective criteria can be constrained to an (optional, but recommended) LMT
 - Would need a defined place for that LMT to go, so it is consistent across systems
- Parameterization is functional only and intended for matching display setups - *not* intended for creative adjustment

Architecture - Proposal?

- This group focuses on a main ACES rendering
 - Similar in scope to the current rendering but fixing the broken or lacking stuff
 - Ignore any possible need for alternate renderings
- Just as using ACEScct is optional (but recommended), maybe the RRT is optional (but strongly recommended)?
- Usage would be tracked in AMF?
 - The other system components already are, why not the rendering too?

Timeline

- This group's objectives are a massive undertaking
- Group has been tasked with following a very aggressive timeline - realistic?
 - Volunteers and participants are many, but because of day jobs, committing is difficult and timelines become hard to predict
- How can we limit the scope to make success more likely?

Effort and Community Contributions

- Some individuals are contributing a great deal of time and energy into explorative work
- In general this is great, and exactly what we want, but...
- How can we make sure those efforts are not misspent?
- Fear of burnout or potential frustration if work isn't ultimately used

TAC members in the community

Discussion points ...

- Is ACES a topic in your world?
- Be an advocate for ACES
- Let us know how things are going in your sphere
- Keep your ear to the ground
- Encourage adoption or help us understand why adoption isn't feasible

TAC process check-in

TAC process check-in

Trying to improve communications ... work in progress

Getting more materials to the TAC in advance of meetings

Would love the communications to flow both directions ... let us know what you think

TAC member (private) discussion area on ACESCentral.com

Open to your ideas to support mission of the TAC and the ACES project

