



\ ACADEMY COLOR ENCODING SYSTEM \

# ACES Implementation Technical Advisory Council Meeting

Thursday, November 19, 2020

\ ACESCentral.com \

# Agenda

Housekeeping

Proposed ACES Roadmap Discussion

Implementation Working Group Reports

- IDT Implementation Working Group
- AMF Implementation Working Group
- CLF Implementation Working Group

# Expected outcomes

TAC provides feedback on the ACES Roadmap

TAC provides feedback to Working Groups on their progress and future plans

# Housekeeping

ACESCentral.com TAC Page

The screenshot shows a web browser window with the title "Leadership and TAC - ACESCentral.com". The URL in the address bar is "https://acescentral.com/leadership-and-tac/". The main content is titled "Technical Advisory Councils". A descriptive text states: "Members of the Technical Advisory Councils are industry experts and technologists who have a broad understanding of motion picture workflows, are invested in the success of ACES, and have an understanding of the impact of ACES-based workflows on their organization's objectives and the entertainment industry as a whole." Below this, there are two sections: "Architecture TAC" and "Implementation TAC". Each section includes a title, a brief description, and a grid of member portraits with their names and titles.

**Architecture TAC**

The Architecture TAC is responsible for ensuring system integrity and that Working Group deliverables are consistent with ACES system goals.

**Implementation TAC**

The Implementation TAC is responsible for the peer-review and acceptance of Working Group deliverables that impact real-world applications or are impacted by real-world implementation considerations.

**ROD BOGART**  
Architecture TAC Chair

**BILL BAGGELAAR**  
EVP & CTO, Technology Development  
Sony Pictures Entertainment

**ALEX FRY**  
Compositing Supervisor  
Animal Logic

**JOACHIM ZELL**  
Implementation TAC Chair

**SEAN COOPER**  
Color Scientist  
DNEG

**JAMES EGGLETON**  
Research Engineer  
Codex

**JOSEPH GOLDSTONE**

**ANDREA KALAS**

**PABLO GARCIA**

**WEYRON HENRIQUES**

# Proposed ACES Roadmap Discussion

# History of ACES Releases

2014

2015

2016

2017

2018

2019

2020

ACES  
1.0

ACES  
1.0.1

ACES  
1.0.2

ACES  
1.0.3

ACES  
1.1

ACES  
1.2

# History of ACES Releases

## ACES 1.0 - 1.0.3

- Initial release, bug fixes, filling the gaps

## ACES 1.1

- Better HDR

New Leadership, Listening Tour, Setting Priorities

## ACES 1.2

- CLF and AMF

# Listening Tour

Top requests from listening tour

- Simplified, invertible, parametric, well-documented output transforms
- Better gamut mapping (fix for color clipping)
- Color pipeline metadata (AMF)
- Robust non-CTL implementations (OCIO, etc.)
- Better documentation

# Proposed Roadmap

## ACES 1.3

- Major feature – Gamut Mapping Algorithm
- Spring 2021

## ACES 2.0

- Major feature – New output transforms
- Q5 2021

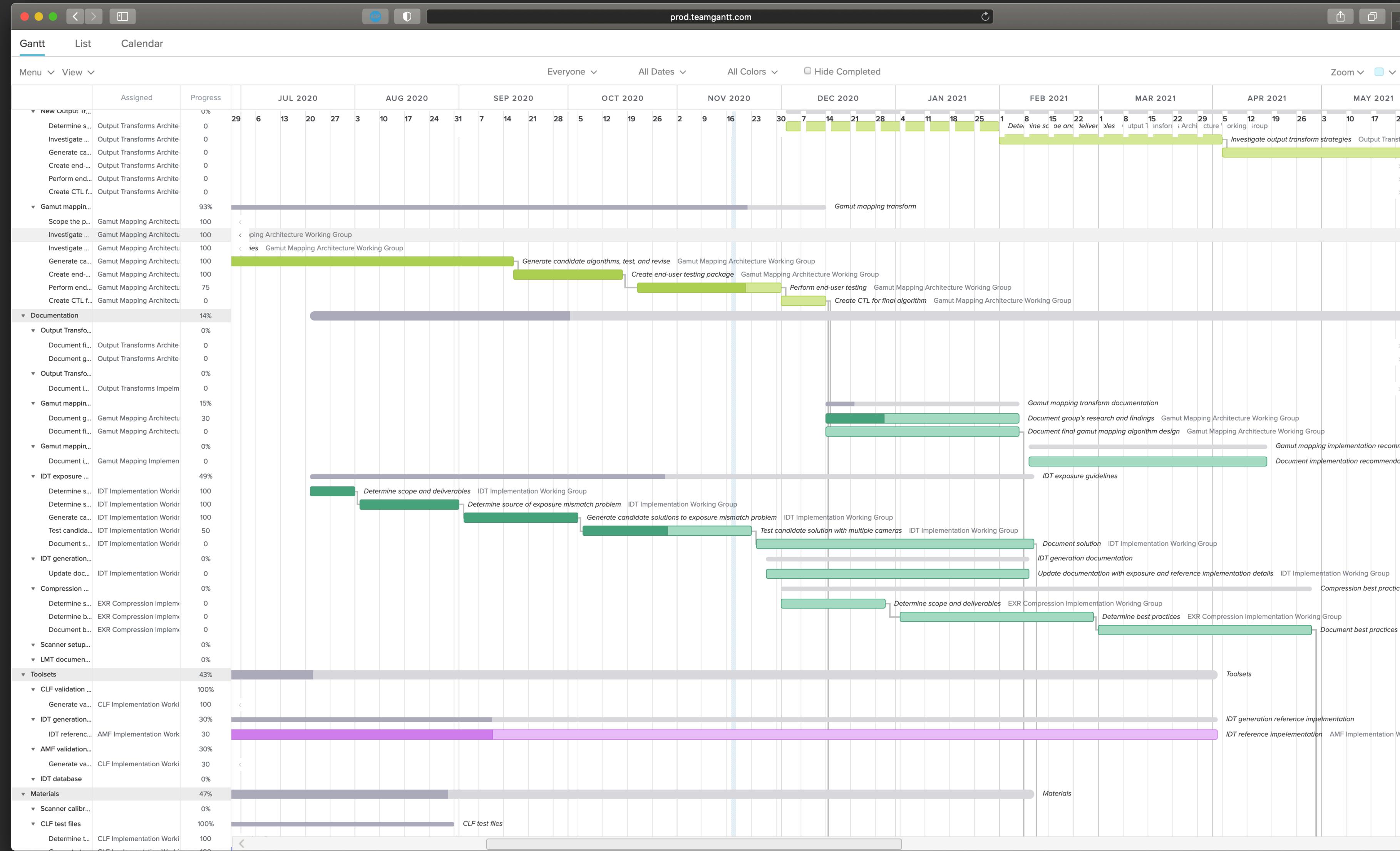
# Getting there ...

Versioned ACES releases limited to transform additions and changes

Documentation removed from transforms repository and given its own home

Documentation, toolsets, test materials, etc. released as available

# Getting there ...



# Discussion & Questions

# IDT Implementation Working Group

Chair: Josh Pines (Technicolor)

# Proposed Deliverables

"how to" document for building IDT's for professional cameras

- linearization and exposure
- reference implementation of existing IDT creation doc
- calculating camera system's spectral sensitivities
- "calibration ISO" documentation (annex)

"how to" document for building IDT's for "black box" cameras

- strategies for linearization of arbitrary encoding
- strategies for "chart based" matrix calculations

# Proposed Deliverables

minimum requirements for ACES logo program

- 3200K and D55 (for cameras that have those CCT settings)
- should IDT's for additional SPD's be optional?

tolerances

- "allowable" differences vs. "mathematical perfection"

# Discussion & Questions

# AMF Implementation Working Group

Chair: Dan Tatut (Marquise Technologies)



# Working Group Progress Update

## Phase 3 (November 2020)

- Started 09/2019 (completion estimated 02/2020)
- AMF Handbook / Implementer's guide / Best practices
- Focus on practical workflows (collaboration with potential users external to the group)
- Focus on AMF experience for users

## Phase 4 (February 2021)

- Scheduled 02/2021
- Distribute documents developed in Phase 3 to various vendors and key users
- Have dedicated sessions to specific potential AMF adopters (camera vendors, color grading vendors, etc)

# Discussion & Questions

# CLF Implementation Working Group

Chair: Doug Walker (Autodesk)

# Working Group Progress Update

CLF Implementation VWG has continued to meet bi-weekly

- Unfortunately there is limited participation from product vendors

Deliverables in progress:

- Set of sample CLF files (strawman collection available)
- Set of processed reference images (target source image is done)
- Implementation Guide (rough draft on Google docs)

Focus of the work is now on finishing the Implementation Guide

# Discussion & Questions