

IAGA 2026 - Vienna

IMAGO TECHNICAL COMMITTEE (ITC) REPORT

March 2026

+
DAVID STUMP - CURRENT PROJECTS & PARTICIPATION (May 2026) Slides 26 to 35

Important updates regarding:

- The ASC Framing Decision List – FDL
- The SMPTE Rapid Industry Solutions / On Set Virtual Production (RIS – OSVP)
- The SMPTE / OSVP Open Track IO Protocol
- The SMPTE / OSVP Open Lens IO Protocol
- The AMPAS / ASC Common LUT Format - The Common LUT Format (CLF)

ITC Co-Chairs (itc@imago.org)



Aleksej Berkovic



Philippe Ros

AFC (France)



David Stump

ASC, BVK, AIP (USA)

We are still seeking co-chairs from South America, Africa, and Asia.

March 2026

23 national associations are represented in the ITC.

Australia - ACS	Estonia - ESC	Romania - RSC
Austria AAC	Finland - FSC	Russia - RGC
Belgium - SBC	France - AFC	Serbia - SAS
Brazil - ABC	Germany - BVK	Spain - AEC
Canada - CSC	Hungary - HCA	Sweden - FSF
Chile - AAC	Italy - AIC	Switzerland - SCS
Colombia - ADFC	Netherlands - NSC	USA - ASC
Denmark - DFF	Norway - FNF	

May 2026



Full and associate members

- Colourists
- Colour specialists
- Post-production managers
- DITs
- First ACs
- Gaffers



**COLORIST
SOCIETY**

March 2026



IMAGO TC Members (Full, Associate, Corporate)

Members

- 34 full members + 3 in the process of joining
- 12 associate members + 3 in the process of joining
- 26 corporate members

Companies represented by Corporate Members

ANGENIEUX, ARRI, BLACK MAGIC DESIGN, CARL ZEISS, COOKE OPTICS FILMLIGHT, FUJIFILM, K5600, KINOFLO, LEITZ, PANASONIC, POMFORT, RED, SAMYANG OPTICS, SCHNEIDER-KREUZNACH, SONY

72 Members

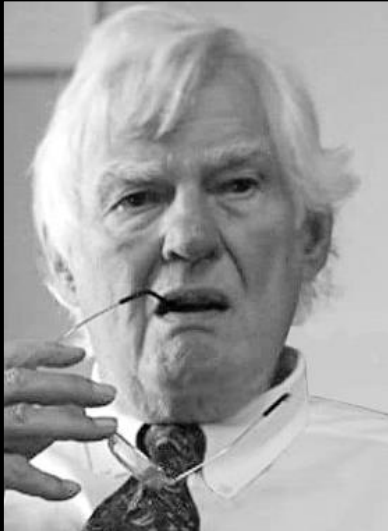
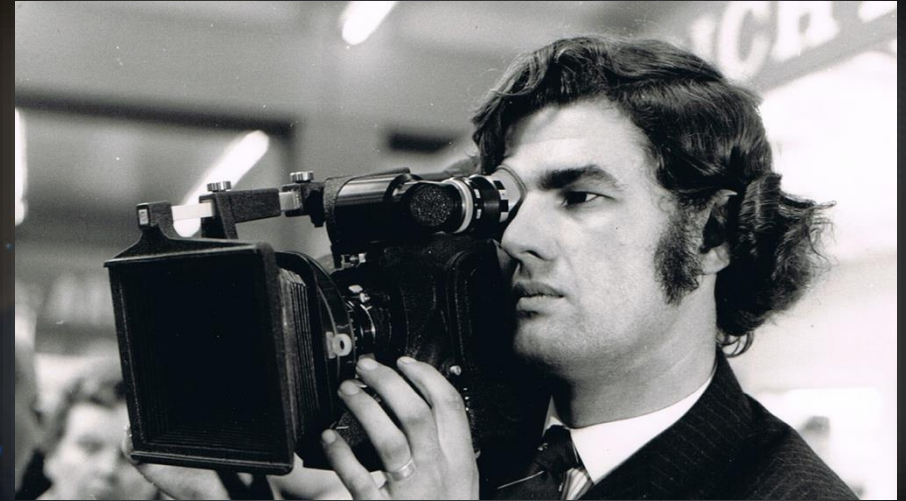
Companies in the process of joining

APUTURE, CANON, PANAVISION, RONFORD-BAKER, CMOTION, KODAK

In red the new members in the process of joining after the Euro Cine Expo Event (June 2025)

IMAGO TC: condolences to Joe Dunton's family

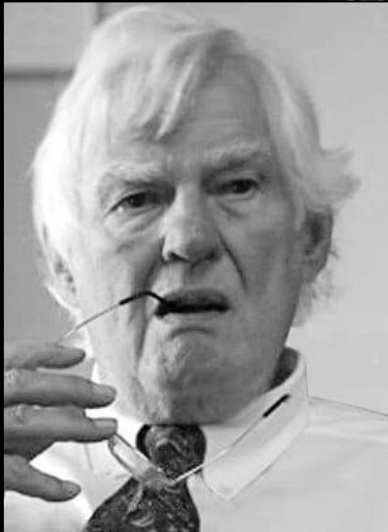




Joe Dunton
Cinematographer
MBE BSC (UK)
1945 - 2025

*“His 20:1 modified Angénieux zoom was used by Stanley Kubrick and John Alcott, BSC on Barry Lyndon (“Company Forward March”).
He never saw a piece of equipment he didn’t want to modify”*

Jon Fauer in Film & Digital Times



Joe Dunton
Cinematographer
MBE BSC (UK)
1945 - 2025

"Joe Dunton, MBE, BSC was the consummate inventor, mentor and friend. He had a gift of laughter and the sense that the world of cinema was not mad but in constant need of repair or retrofitting".

Jon Fauer in Film & Digital Times

ITC STRUCTURE



**OPTICS
COUNCIL**

**CAMERA
COUNCIL**

**GRIP
COUNCIL**

**LIGHT
COUNCIL**

**IMAGE PROCESSING
COUNCIL**

**PRESENTATION
COUNCIL**

**RENTAL
COUNCIL**

**PROJECTS
COUNCIL**

Thanks to the BVK and Dirk Meier (BVK, CSI, active ITC full member), the committee uses the MATTERMOST platform to communicate on projects and between councils

Invited by:



Claire & Rob Saunders

ECE Advertising
Manager/
Organizer

ECE Manager/
Organizer

Munich

Thanks to:



Ron Prince & Alan Lowne

Special
consultant

Editor-in-chief

international celebration of the moving image

eurocine

2025



MUNICH June 26-28



TECHNICAL
& EDUCATION
COMMITTEES



Second mini-summit on AI

June 2025



TECHNICAL & EDUCATION COMMITTEES

- In 2022, ECE facilitated ITC for two panels.
- Six panels and lectures took place in 2023
- Twelve panels and lectures took place in 2024
- Twelve panels with the ICLS and CITO in 2025.
- We want to thank the SBC and the FNF for their special help for these editions



ITC I M A G O
TECHNICAL
COMMITTEE
FOR THE ART OF CINEMATOGRAPHY



ICLS

Joint activity
with Gaffers
Members of ICLS



Cooperation with Journalists and
magazine



THE COMPLETE REPORT OF THE EVENT CAN
BE FOUND ON THE IMAGO WEBSITE.



NEWS, EDUCATION, TECHNICAL DECEMBER 30, 2025

IMAGO's Technical & Education Committees – Links to Recordings of the 2025 Euro Cine Expo Symposium Sessions

Twelve important sessions, including a mini summit on AI.



<https://imago.org/news/imago-itc-iec-euro-cine-expo-2025-2/>

DETAILS OF ITC ACTIONS
FROM JUNE 2025 TO DECEMBER 2026

PROJECTS
COUNCIL



ITC I M A G O
TECHNICAL
COMMITTEE
FOR THE ART OF CINEMATOGRAPHY

BLACK NIGHTS FILM FESTIVAL

A!

Aalto University
School of Arts, Design
and Architecture

Tallinn
Helsinki

PÖFF
TALLINN BLACK NIGHTS
FILM FESTIVAL



A Cinematographer's Journey

DISCOVERY CAMPUS

FRAME WITHIN A FRAME 2025



INDUSTRY@TALLINN
& BALTIC EVENT

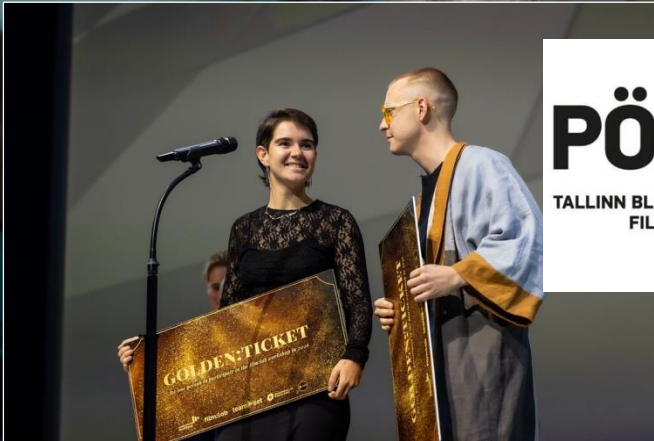
November 2025

PROJECTS
COUNCIL



A!

Aalto University
School of Arts, Design
and Architecture



Eight Emerging Cinematographers to Take Part
in an Immersive, Tech-Forward Journey in
Tallinn & Helsinki

November 2025

**PROJECTS
COUNCIL**

A!

**Aalto University
School of Arts, Design
and Architecture**

This year, four cinematographers, all full members, of the ITC participated in this edition.

From Tallinn to Helsinki, they were responsible for leading masterclasses workshops, discussions and screenings for these young talents.



PROJECTS
COUNCIL



A!

Aalto University
School of Arts, Design
and Architecture



Rauno Ronkainen

Cinematographer, FSC, ITC
Professor in Cinematography
Aalto University, Helsinki

A bridge over the Baltic sea



Thanks to:



Dhanushka Gunathilake

Cinematographer, SLSC
Head of Discovery Campus
PÖFF Tallinn

PROJECTS
COUNCIL

THE ODCC

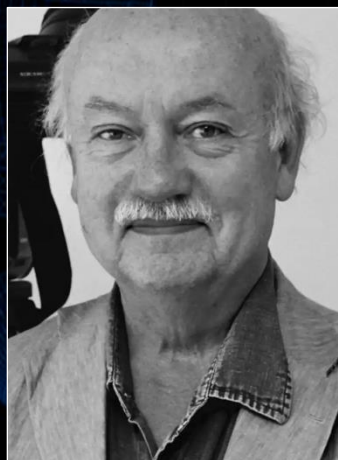


Heading North!

OSLO DIGITAL CINEMA CONFERENCE

The place to be!

THE ODCC



*“ODCC gave me nourishment for a while,
both from a human and a cinematographic
perspective”.*

Marie Spencer, AFC

*“Conviviality”, “Great value”, “The best place to
learn and to share professional experience”*

Paul-René Roestad
Cinematographer, FNF
Former FNF President

Thanks to:



Ole Andreas Grøntvedt
Cinematographer,
FNF President

THE ODCC

In 2025 , ITC was involved in:

- *“Artificial Intelligence: Checking in on AI in 2025”* - What can it do for us? By
Daniele Siragusano Image engineer, FilmLight & David Stump, ASC, BVK, AIP
- *“Cutting Edges - In Camera Visual Effects in Film Education”* By Tony Costa, AIP and Dave Stump ASC BVK
- *“The Creative Triangle: Relationship between Actors, Directors and Cinematographers in the digital world”*. by Philippe Ros, AFC, moderated by David Stump, ASC, BVK, AIP with: Halfdan Ullmann Tøndel (dir), Pia Tjelta (actress), John-Erling Holmenes Fredriksen FNF & Aleksey Berkovic
- *“A new vision of film production reality: the future of the profession”* by Aleksey Berkovic, ITC with:
Philippe Ros, AFC, ITC & David Stump, ASC, BVK, AIP
- *“HDR: An update”* Steve Yedlin ASC, moderated by David Stump, ASC, BVK

Charles Poynton , colour scientist and ITC associate member gave two lectures:

- *“Noise performance of modern cinema cameras”*.
- *“Gamma and log coding for D-cinema”*

The ITC has participated in
this unique biennial
conference for many years.

PROJECTS
COUNCIL



COMMON LANGUAGE

FOR INTERNATIONAL COMMUNICATIONS

THE GLOSSARY & THE PHOTON PATH

“To name things wrongly is to add to the misfortune of the world”

Albert Camus



PROJECTS COUNCIL

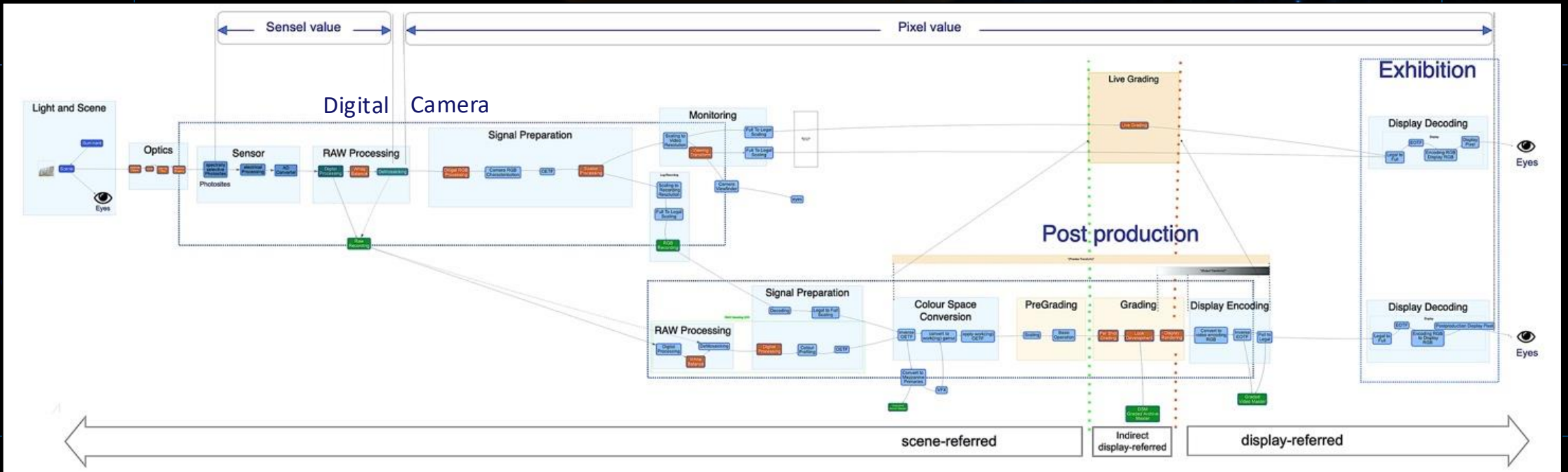
Daniele Siragusano
Imaging Engineer
FilmLight (Germany)



COMMON LANGUAGE

FOR INTERNATIONAL COMMUNICATIONS

THE GLOSSARY & THE PHOTON PATH





PROJECTS COUNCIL

Daniele Siragusano
Imaging Engineer
FilmLight (Germany)



COMMON LANGUAGE

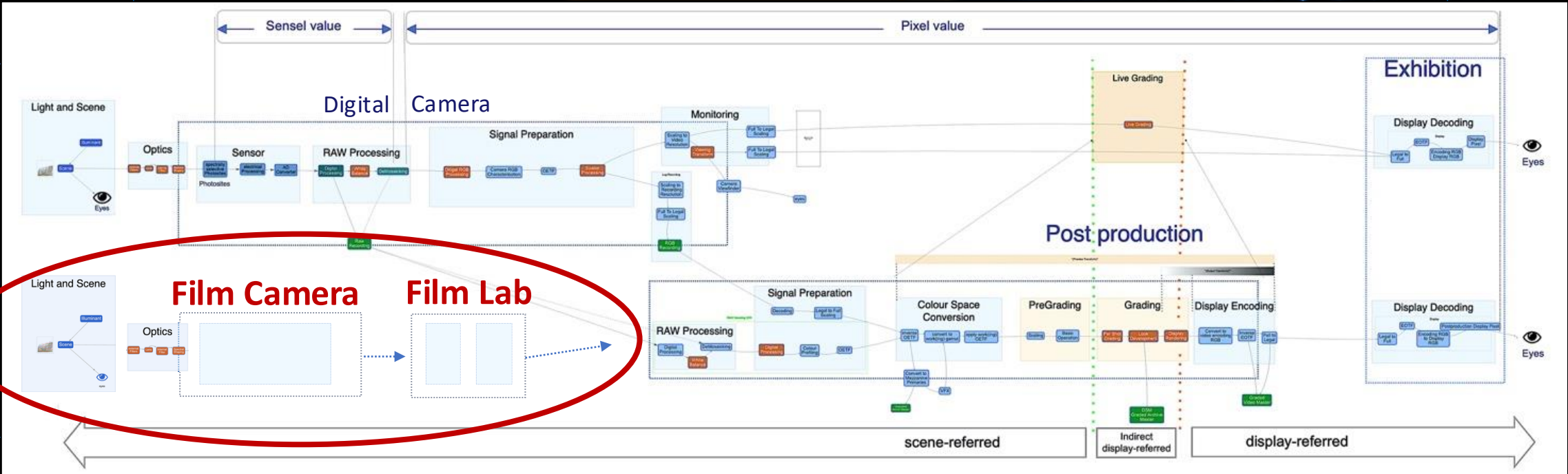
FOR INTERNATIONAL COMMUNICATIONS

THE GLOSSARY & THE PHOTON PATH

Daniele Siragusano (image engineer at FilmLight) started a simple sketch to draft the path a single photon would pass from light source through scene, lens, camera and post-production to the viewer looking at a display. As this sketch became very extensive, it helped understanding the order of signal processing and correct terminology in digital cinema

PROJECT

THE PHOTON PATH WITH FILM CAPTURE





DAVID STUMP

CURRENT PROJECTS & PARTICIPATION

Within the ITC, David holds a special place, not only because he is one the three co-chairs but also because he is a member of the MITC (the ASC technical committee) within which he chairs the metadata committee.

We should also state his affiliation with the following organizations:

IATSE, AMPAS, ATAS, Academy Award Scientific & TechnicalL



DAVID STUMP

CURRENT PROJECTS & PARTICIPATION

All his work and research is shared with the ITC but also with the whole community.

The next pages will give some examples of his activities which are extremely important, if not essential, to the protection and advancement of the profession of cinematography.

2023 - Present (ongoing) - Committee Member, Cinematographer Participant

ASC Framing Decision List – *FDL*

<https://theasc.com/society/ascmic/asc-framing-decision-list>

<https://ascmic.github.io/fdl/>

The ASC FDL is a set of instructions for how to view content in any application. The ASC FDL provides a mechanism to document framing decisions through all phases of a production's life cycle, from pre-visualization through post-production. ASC FDL is a toolkit for parsing, validating, creating, and transforming [Framing Decision List \(FDL\)](#) files in order to ensure accurate framing of images from creation through production, editorial, postproduction, distribution and exhibition, and all the way to archival.

2023 - Present - Committee Member, Cinematographer Participant

SMPTE Rapid Industry Solutions

On Set Virtual Production (RIS – OSVP)

<https://www.smpte.org/rapid-industry-solutions/on-set-virtual-production>

The SMPTE Rapid Industry Solutions (RIS) On-Set Virtual Production (OSVP) initiative is a program designed to accelerate the adoption of virtual production technologies. It brings industry experts together to create open standards, interoperability, and educational resources to address the complexities of merging physical and digital production.



2023 - Present - Committee Member, Cinematographer Participant

SMPTE Rapid Industry Solutions - On Set Virtual Production (RIS – OSVP)

Key Aspects of SMPTE RIS OSVP:

- **Purpose:** To tackle the challenges of combining traditional production tools with LED walls, game engines, and AR/VR/XR technology.
- **Focus Areas:** The initiative centers on creating a portfolio of tools, including interoperability, education, and best practices.
- **Deliverables:** Major outputs include the interactive OSVP wall chart and camera/lens metadata standards to improve workflows.
- **Industry Collaboration:** It brings together vendors, engineers, and creatives to create a unified ecosystem.



2024 -2025 (ongoing) - Committee Member, Cinematographer Participant

SMPTE (Society of Motion Picture and Television Engineers)

/ OSVP Open Track IO Protocol

<https://www.opentrackio.org/>

<https://www.opentrackio.org/schema.json>

OpenTrackIO is a free and open-source protocol designed by the SMPTE RiS-OSVP group that seeks to improve interoperability in Virtual Production, VFX and general production.

- In Virtual Production it is critical that the camera capture, the tracking data, and the lens data are synchronized in space and time to accurately reproduce the visual effect. Virtual Production (VP) encompasses a range of techniques that use camera and lens tracking systems to generate real-time visual effects (VFX) in a render engine. In Virtual Production the camera tracking system sends the pose of the camera, lens modeling and other metadata to a render engine every frame.



2024 -2025 (ongoing) - Committee Member, Cinematographer Participant

SMPTE (Society of Motion Picture and Television Engineers) / **OSVP Open Track IO Protocol**

- In Augmented Reality (AR) setups, this enables the render engine to generate virtual objects from the correct camera position and with correct lens distortions to match the real world camera image. In the In-Camera Visual Effect (ICVFX) example, the tracking data is used to render the correct perspective on the LED wall to create the illusion of depth and with a sense parallax.

OpenTrackIO employs the [OpenLensIO mathematical lens model](#) for the practical application of spherical lens distortion in Virtual Production. See [here](#) for conversion mathematics from the OpenCV model.

2024 - 2025 (ongoing) - Committee Member, Cinematographer Participant

SMPTE (Society of Motion Picture and Television Engineers) */ OSVP Open Lens IO Protocol*

https://www.opentrackio.org/res/OpenLensIO_v0_9_0.pdf

OpenLensIO is a free, open-source mathematical lens model developed by the SMPTE Rapid Industry Solutions On-Set Virtual Production (RIS-OSVP) group. It is specifically designed to provide a standardized, accurate representation of lens distortion for virtual production and visual effects (VFX) workflows.

Key Aspects of OpenLensIO:

- **Standardization:** It provides a universal language for lens data, overcoming the limitations of proprietary, closed systems that often cause interoperability issues in Virtual Production (VP)



2024 - 2025 (ongoing) - Committee Member, Cinematographer Participant

SMPTE (Society of Motion Picture and Television Engineer) / *OSVP Open Lens IO Protocol*

Key Aspects of OpenLensIO:

- **Purpose:** The model is used to accurately model the lens characteristics to generate real-time visual effects (VFX) in a render engine that match the real-world camera image.
- **Components:** OpenLensIO defines both static parameters (independent of the lens state) and dynamic parameters (varying based on zoom, focus, and iris positions).
- **Relationship to OpenTrackIO:** OpenLensIO is used in conjunction with OpenTrackIO, another SMPTE standard that carries camera tracking data, ensuring that the camera tracking system, lens data, and video capture are synchronized in space and time.
- **Implementation:** It supports complex lenses and allows for easy swapping of lenses in virtual production, as well as precise bokeh rendering on CGI backgrounds.

David Stump

2008 – Present (ongoing) - Originator Co-Author of Specification

AMPAS / ASC Common LUT Format - The Common LUT Format (CLF) - A text-based, XML format for describing color transformations, particularly in the context of look-up tables (LUTs)

<https://docs.acescentral.com/guides/clf/>

<https://github.com/ampas/CLF>

<https://github.com/SMPTE/st2136-10>

In high-end film and television production, there is often a need to produce a number of output formats for delivery to the end user, to other broadcasters and to the archive. When producing multiple formats, broadcasters and production companies currently rely on Look-up Tables (LUTs) to perform a range of conversions. Current LUT formats can be difficult to use and require expert knowledge to install correctly. SMPTE ST 2136-10 aims to make the process much easier by standardizing the specification.

21 years after its conception in my ASC Metadata Subcommittee, SMPTE Standard ST 2136-1 Common LUT Format for use in real-time, live video production is being codified into a standard.

PROJECTS
COUNCIL

PROJECT (COMPLETED!)

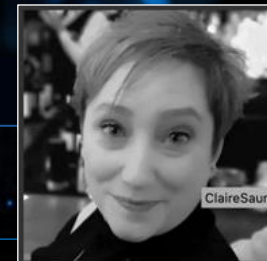
A report will follow



eurocine

8-9 may 2026 • budapest hungary

Friday 10:00 – 18:00 Saturday 10:00 – 17:00



Claire & Rob Saunders

- For this edition in Hungary, the ITC is preparing 18 panels *(We have managed to organise 14)*
- The challenge is to invite two important associate members of the ITC:
 - Charles Poynton, colour scientist (Canada) *(Charles did us the immense honour of making a detour to Budapest during his European tour)*
 - Miga Bär, post-production specialist, NSC associate member (Netherlands) *(Unfortunately, Miga wasn't available; we hope to see him on board next year)*

The third mini-summit on AI will occupy a predominant place

Third mini-summit on AI

ITC OBSERVATIONS



- **Please join the IMAGO TC!**
 - ✓ Many countries are not represented in the committee
 - ✓ There is an obvious shortage of women cinematographers
- Cinematography is a field where art and technique are totally intertwined
 - ✓ Technique is not just for men
 - ✓ Whatever our gender we use the same tools

A GENERAL POINT OF VIEW
ON
TECHNICAL COMMITTEES

- Cinematographers are living in a world where the concept of future is profoundly altered
- The crisis has reached all the structure of our industry
- Artificial intelligence & cutting-edge technologies are held by a handful of individuals with very marked authoritarian intentions.
- New political concept, such as techno-fascism have emerged

- More than ever, the response to this crisis can only be a collective one
- It is only few cinematographers through international organisations trying to influence the vector of technological developments and standards.
- And, consequently, influence the future of our profession

ITC POINT OF VIEW



David Stump, ASC, BVK, ITC co-chair is working in MITC, RIS, (Rapid Industry Solutions Initiative of SMPTE dedicated to new technology like Virtual Production),

- Key technological choices regarding the future of filmmaking are made within these international bodies (They are all predominantly based in North America).
- Numerous representatives from post-production and various platforms participate in these discussions.
- Only a limited number of cinematographers are engaged in these important conversations.

- ACES architecture has become a standard for many productions in the world, especially for indie movies*
- METADATA and AI are deeply intertwined in the creation of new functional architecture tools
- Without cinematographers' participation in these processes, much of the creative freedom for films risks disappearing

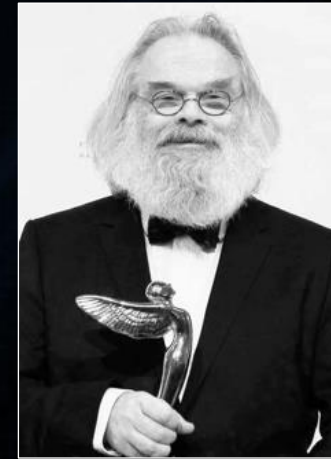
- ACES (reminder)*

The Academy Color Encoding System (ACES) is a global standard for interchanging digital image files, managing color workflows and creating masters for delivery and archiving. ACES was at the beginning a request from big american studios to simplify the production process and not to be dependant from laboratory and post-production - Thanks to many creators of this architecture, ACES STAYED FREE AND OPEN SOURCE

AI infrastructure could require hundreds of billions of dollars in investment.

OpenAI may remain unprofitable until around 2029 or later.

SOME FACTS ABOUT THE WORK OF THE ITC



Kommer Kleijn
Cinematographer
SBC (Belgium)

Honoured As Fellow Of
The SMPTE (Nov. 2020)

- Over a period of a decade, the ITC, then chaired by Kommer, convinced the standardization community at SMPTE:

*24 fps
& or
25 fps?*

- To add 60, 50, 30 and 25 frames per second to the world DCP standard for theatrical presentation releases.
- To add frame rates for archival silent films, with the goal to allow audiences to see them close to the frame rates at which they were shot.



- More recent research done by ITC under Kommer's leadership concerns color metamerism and other issues caused by RGB laser light source projectors in cinema theatres.
- This contributed to major projector manufacturers now developing Hybrid laser projectors to solve this. But the journey is far from over*.
- It took almost 4 years to the ITC to obtain from some camera manufacturers the access to sharpness control.

* There is a new laser projector model having been publicly presented in Paris Max Linder theatre as recently as this february 27th, 2026. A projector with added phosphor light to indeed alleviate most of these issues.

IT IS IN THIS LONG-TERM CONTEXT
THAT
THE WORK OF THE ITC IS CARRIED OUT

- There are concerns regarding the future of using 25 fps for theatrical releases, which is currently at risk.
- Framing Decision List (FDL) and metadata are not solely relevant to high-end productions.
- In the age of artificial intelligence, it is crucial to maintain the authority of creators, filmmakers, cinematographers, and all media professionals.

ONLY A COLLECTIVE APPROACH WILL ALLOW
US TO EFFECTIVELY RESPOND TO ALL THESE
CHALLENGES

THANK YOU!