

OpenColorIO

ASWF TAC Update - November 2023

Contributor Data



Technical Steering Committee

Chair: Carol Payne

Chief Architect: Doug Walker (Autodesk)

TSC Members

Remi Achard (DNEG)

Mark Boorer (ILM)

Mei Chu (Imageworks)

Sean Cooper (ARRI)

Michael Dolan (Epic Games)

Patrick Hodoul (Autodesk)

Thomas Mansencal (WetaFX)

Zach Lewis (Method Studios)

Carl Rand (Weta Digital)

Mark Titchener (Foundry)

Kevin Wheatley (Framestore)



Project Longevity

- **Real talk:** OCIO looks great from the outside, but we have the same issues as all ASWF / Open Source projects:
 - Without the continued sponsorship of Autodesk, the project would likely go back to treading water
 - Struggle with consistent, dependable involvement (i.e. code reviews)
 - TSC is made up of many experts, but most aren't contributing code on a regular basis
 - Get a decent amount of one-off contributions, but struggle to retain into regular committers



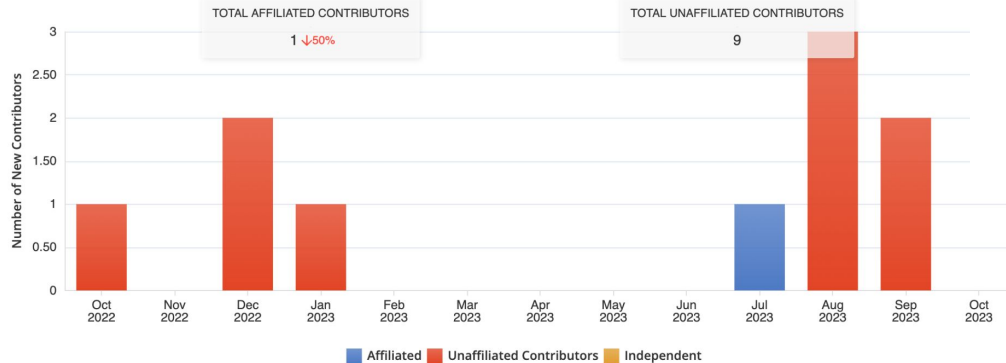
Contributors

???



New Contributors

The count of the number of contributors who contributed towards commits, pull requests/changesets issues or documentation for the first time during the period.



TOTAL COMMIT BY NEW CONTRIBUTORS



■ Commits by New Contributors ■ Total Commits



**Since we last
talked...**



SMPTE Workflow Systems Medal



The Past Year

v2 Config Release

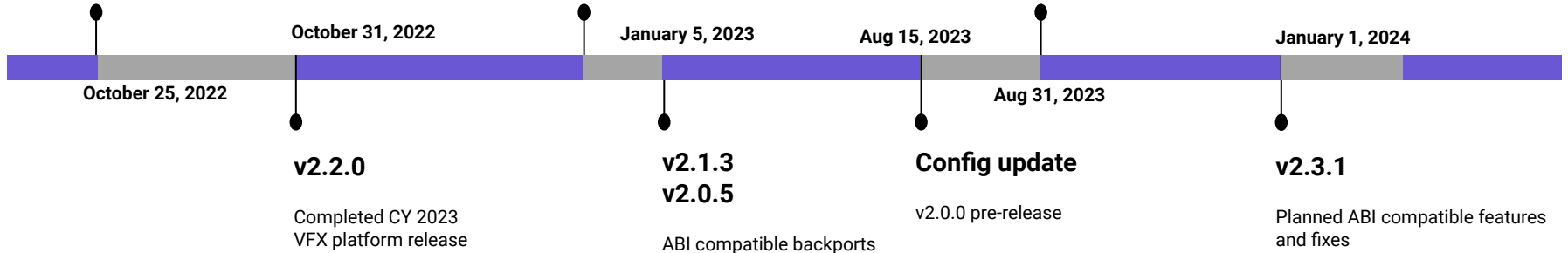
v1.0.0 ACES Configs
(Reference, CG, Studio)

v2.2.1

ABI Compatible features and
fixes

v2.3.0

CY 2024 VFX platform release



v2.3.x Delivered New Feature Highlights

- New "ocioview" visual config editor
- Updated built-in OCIO configs for ACES
- Apple Silicon support & optimizations
- AVX SIMD optimizations
- Python Wheel command-line apps
- CMake / CI enhancements



V2.3 - Config Merging Tech Preview

Releasing this fall as a "Tech Preview" alongside 2.3

- Will be available in a separate branch
 - Gives more time for community review & discussion

Common use-cases:

1. Enable configs to be built up from components
2. Allow applications to transparently add required color spaces
3. Make it simpler to add a LUT to an existing config

Config Merge section on the OCIO Wiki:

<https://github.com/AcademySoftwareFoundation/OpenColorIO/wiki/Config-Merge-examples>



What's next...



Open Source Roadmaps

Open source projects present planning challenges

- Velocity is highly unpredictable
 - Volunteers & expertise come and go
- Apps that have integrated OCIO may have difficulty planning
 - What will be the new features & when will they arrive?

Goal: Develop a Roadmap for the fall 2024 release

- Give better visibility into the features under consideration
- Identify features that are underway and likely to make the release



Future Plans *(tentative plans, under consideration)*

Trends of note:

- Increasing importance of web & mobile platforms
 - Having a lighter-weight version of the library would help
 - Having a JavaScript binding would help
- Demand for pure shader-based transforms without LUTs
 - Allocating LUT textures is more costly on lower-end hardware
 - OCIO is now able to do more without needing LUTs



Future Plans *(tentative plans, under consideration)*

OCIO for web

- Smaller version of library with fewer dependencies
- Primarily aimed at GPU processing (shader output)
- OCIO.js binding
- Some restrictions compared to the full library
 - E.g., probably no FileTransform / LUT support



Future Ideas *(tentative plans, under consideration)*

- ACES v2
- Better integration with OS-level display color management
- Grading workflows / Shot-based looks
- Common LUT Format (CLF) v4
- Vulkan support
- Improved OpenEXR interop
- Default Viewing Pipeline enhancements
- Improved ACES Metadata File (AMF) support
- Config diff tools



Working Group Updates



OCIO Configs Working Group

Goal: Provide a curated set of color space implementations

- Targeting VFX, animation, and games industries
- Currently providing several configs (*now built-in to the library itself*):
 - **OCIO CG Config for ACES** (light-weight, minimal collection for CG)
 - **OCIO Studio Config for ACES** (full ACES, for compositing & post-production)
- These configs provide ACES as well as other commonly used spaces
 - The non-ACES spaces are for texturing, linear camera spaces, etc.



Config Methodology

Naming / Version Control

studio-config-v2.0.0_aces-v1.3_ocio-v2.3.ocio

Config version ACES version OCIO library version

ACES-based, but not bound

- Some exclusions:
 - Certain Output Transforms (ex: DCDM)
 - Superseded Input Transforms (ex: Slog1, REDLogFilm)
 - ACESproxy
 - Old ACES Emulations
- Some additions:
 - sRGB texture spaces
 - Utility linear spaces



OCIO *Color Interop Forum*

Goal: Encourage color space interop across industry projects

- The Configs WG already includes a variety of stakeholders
 - ACES, camera vendors, experts from VFX, animation, games, post
- But would like broader participation
 - Other ASWF projects, OpenUSD, more app developers
- Aiming to coordinate discussions around color space support
 - What is the list of color spaces, how should they be named, etc.
- Looking for advice about how to get more people involved
 - Particularly those not currently using OCIO



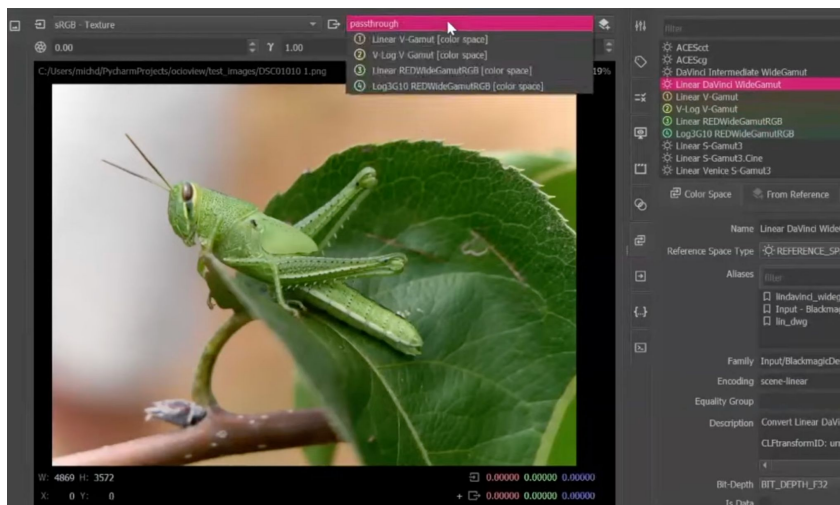
UI/UX Standards & Documentation Working Group

Status

- Monthly working group
- UX guidelines for app developers
- Coverage of user facing OCIO features
- Standard page template with:
 - Background
 - Resources (links)
 - Use Cases
 - Guidelines
 - Mockups

Up Next

- Use new “ocioview” application as a basis for documentation & guidelines



Discussion

