

/* ACADEMY
SOFTWARE
FOUNDATION

Overview

October 2025

Antitrust Policy Notice

Linux Foundation meetings involve participation by industry competitors, and it is the intention of the Linux Foundation to conduct all of its activities in accordance with applicable antitrust and competition laws. It is therefore extremely important that attendees adhere to meeting agendas, and be aware of, and not participate in, any activities that are prohibited under applicable US state, federal or foreign antitrust and competition laws.

Examples of types of actions that are prohibited at Linux Foundation meetings and in connection with Linux Foundation activities are described in the Linux Foundation Antitrust Policy available at linuxfoundation.org/antitrust-policy. If you have questions about these matters, please contact your company counsel, or if you are a member of the Linux Foundation, feel free to contact Andrew Updegrove of the firm of Gesmer Updegrove LLP, which provides legal counsel to the Linux Foundation.

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#ASWF

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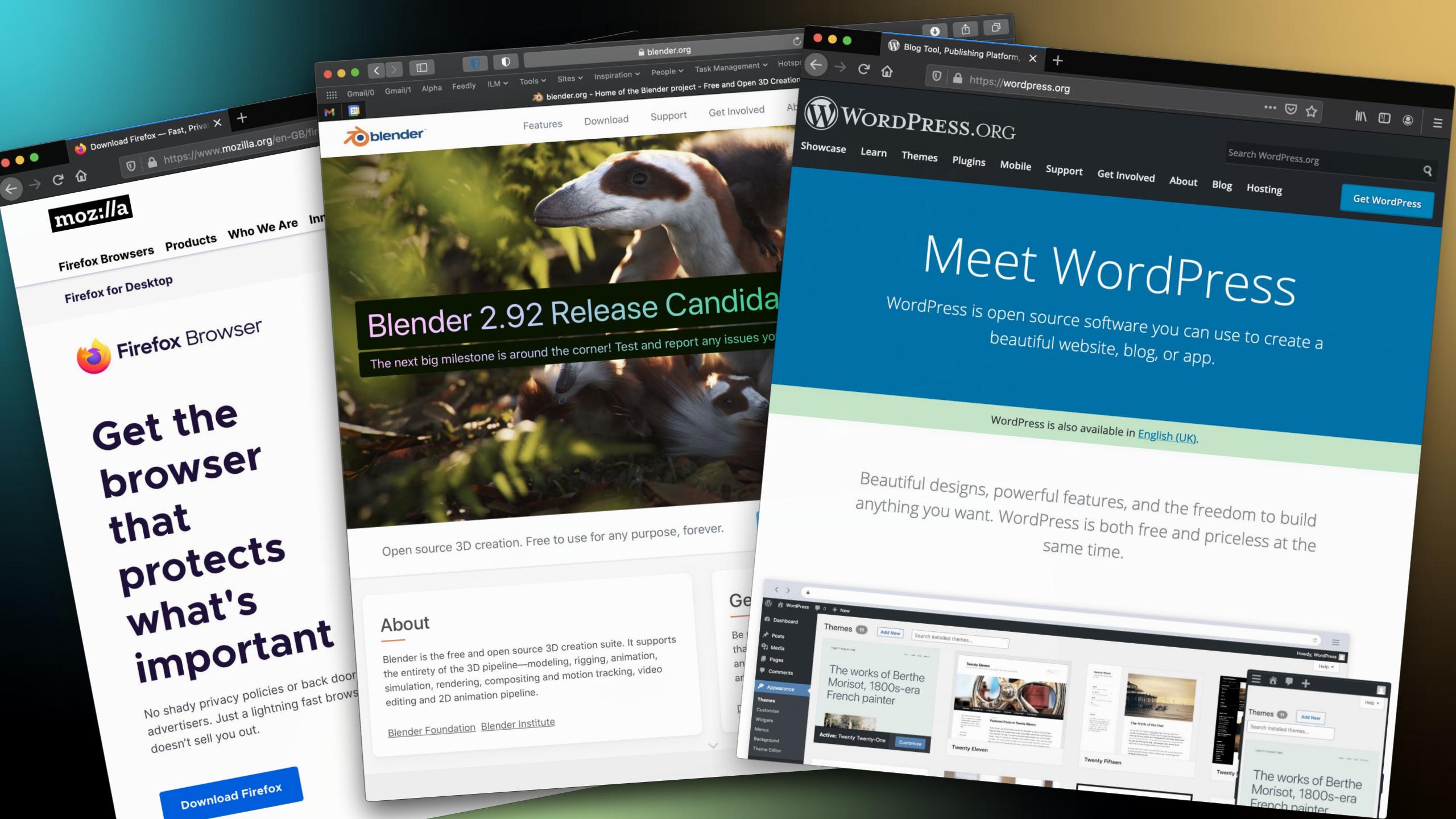
Why Open Source?

Why Open Source?

- Software development has a **cost**
 - Development
 - Maintenance
 - Documentation
 - Training
- Open Source ecosystems **share** those costs
- Empower developers to lead development

Open Source Projects

Vertical Industry	     
Security	      
AI & Data	       
Cloud	       
Networking	       
Edge & IoT	       
Web	       
Visual Effects	      
Sustainability	      
Digital Trust	     
Hardware	     
Standards	      



Get the browser that protects what's important

No shady privacy policies or back door advertisers. Just a lightning fast browser that doesn't sell you out.

Download Firefox



moz://a

Firefox Browsers Products Who We Are Inspiration
Firefox for Desktop

The next big milestone is around the corner! Test and report any issues you find.

Open source 3D creation. Free to use for any purpose, forever.

About

Blender is the free and open source 3D creation suite. It supports the entirety of the 3D pipeline—modeling, rigging, animation, simulation, rendering, compositing and motion tracking, video editing and 2D animation pipeline.

[Blender Foundation](#) [Blender Institute](#)

blender.org

Features Download Support Get Involved About

Blender 2.92 Release Candidate

WORDPRESS.ORG

Showcase Learn Themes Plugins Mobile Support Get Involved About Blog Hosting

Meet WordPress

WordPress is open source software you can use to create a beautiful website, blog, or app.

WordPress is also available in [English \(UK\)](#).

Beautiful designs, powerful features, and the freedom to build anything you want. WordPress is both free and priceless at the same time.

Twenty Twenty-One

The works of Berthe Morisot, 1800s-era French painter

Twenty Eleven

Twenty Fifteen

Twenty

The works of Berthe Morisot, 1800s-era French painter

Open Source: Innovation Accelerator

Standardization on open technologies

Neutral environment for collaboration & cross-pollination

Innovation multiplier

Enables better interoperability

Minimizes fragmentation

Qualifies reference architectures

Lowers barriers to enter a new domain

Enables new business opportunities

Leads to better products

Allows shared cost of development

About the Academy Software Foundation

#ASWF

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Open Source in Entertainment

*How the Academy Software Foundation
Creates Shared Value*

A report from
 | Research

Written by
Barbara Robertson
report.aswf.io

DUNE Image Courtesy of DNEG © Legendary
Warner Bros. Entertainment Inc. All Rights Reserved.



An Open Source Foundation Developed in Partnership



The Academy Software Foundation provides a neutral forum for open source software developers in the motion picture and broader media industries to share resources and collaborate on technologies for image creation, visual effects, animation and sound.



Why the Academy Software Foundation?

- Legal Framework
- Continuous Integration and Build Infrastructure
- Clear path to accepting contributions (neutral forum)
- Versionitis

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ASWF created

01

First project

August 10, 2018

Founding members:

Animal Logic
Autodesk

Blue Sky Studios

Cisco

DNEG

DreamWorks

Animation

Epic Games

Foundry

Google Cloud

Intel

SideFX

The Walt Disney Studios

Weta Digital



Scitech Council
Open source investigation concludes

Open Source Day 2019

July 29, 2019

OpenTimelineIO

Netflix

Amazon Web Services

Rodeo FX

MovieLabs

Sept 13 2019
Apr 16 2020
Open Shading Language

Apple

Microsoft

AMD

DockYard

05

Open Source Days 2020

Aug 19-20 2020

Unity

Conductor

Technologies

SMPTE

08

Open Source Days 2021

August 4-5 2021

MaterialX

Maxon

10

Open Source Forum 2022

March 10, 2022

Rez

DPEL

Raw2ACES

12

Open Source Days 2022

August 8-9, 2022

OpenFX

OpenAssetIO

Open Review

Initiative

Canonical

Khronos Group

Jan. 28 2022

Wevr

11

Open Source Forum 2023

Feb 16 2023

HP

Framestore

13

Open Source Forum 2024

Feb 22 2024

Mod Tech

Labs

14

Open Source Days 2023

July 25 -

August 7, 2023

OpenImageIO

Otoy

Bolt Graphics

Coreweave

15

5
YEARS

Open Source Days 2024

July 23-29 2024

Samsung

Caligra

Open Source Forum 2025

Feb 13 2025

OpenAPV

Stability.ai

RaynaultVFX

17

Open Source Days 2025

August 4-10 2025

ACES

DNA

RMTC

LAIKA

Skydance

Animation

18

Open Source Days 2024

February 2024

Mod Tech

Labs

16

Open Source Days 2025

February 2025

OpenAPV

Stability.ai

RaynaultVFX

19

Open Source Days 2026

August 2026

ACES

DNA

RMTC

LAIKA

Skydance

Animation

August October February May August October February January August February August February August February August February August February August February August

2018

2019

2020

2021

2022

2023

2024

2025

Membership

Premier



General



Associate



Governing Board Representatives



Rob Bredow
Chair
Industrial Light & Magic



Daniel Heckenberg
Netflix, Inc.



Darin Grant
Treasurer
General Member Representative



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Vice Chair
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Eric Mejdrich
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Gregory Ducatel
Sony Pictures Entertainment



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NVIDIA Corporation



Jeff Stringer
LAIKA, LLC



Jeremy Smith
General Member Representative



Kimball Thurston
Wētā FX Limited



Kwang Pyo Choi
Samsung Electronics Co. Ltd.
TAC Representative



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Sony Pictures Imageworks



Mark Jackels
DreamWorks Animation



Meredith Shea
Academy of Motion Picture Arts and Sciences



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Apple Inc.



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DNEG



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General Member Representative



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Intel Corporation



Sean Wallitsch
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Microsoft Corporation

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Netflix



Beverly Kite
Academy of Motion
Picture Arts and
Sciences



Bhanu Srikanth
Netflix, Inc.



Carol Payne
Apple Inc.



Christy Anzelmo
The Foundry
Visionmongers
Limited



Duncan Burbidge
Epic Games, Inc



Erik Niemeyer
Intel Corporation



Greg Denton
Microsoft Corporation



john canning
Advanced Micro
Devices (AMD)



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LAIKA, LLC



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Skydance Animation,
LLC



Kevin Sprout
NVIDIA Corporation



Morgan Prygrocki
Adobe Inc.



Paul DiLorenzo
DreamWorks
Animation



Rachel Rose
Industrial Light &
Magic



Scott Cler
Amazon Web
Services, Inc.



Tony Micilotta
Autodesk



Youngkwon Lim
Samsung Electronics
Co. Ltd.

Technical Advisory Council (TAC)



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Chair

Sony Pictures
Imageworks



Andy Jones
Netflix, Inc.



Carol Payne
Vice Chair
Apple Inc.



Cary Phillips
Industrial Light &
Magic



Chris Hall
Advanced Micro
Devices (AMD)



Chris Kulla
Epic Games, Inc



**Christopher
Moore**
Skydance Animation,
LLC



**DANIEL
GREENSTEIN**
Sony Pictures
Imageworks



**Diego Tavares da
Silva**
Sony Pictures
Imageworks



Eric Enderton
NVIDIA Corporation



Erik Niemeyer
Intel Corporation



Gordon Bradley
Autodesk



Greg Denton
Microsoft Corporation



TAC Representative
Visual Effects Society



**Jean-Michel
Dignard**
Epic Games, Inc



Jonathan Gerber
LAIKA, LLC



Jonathan Stone
Lucasfilm



Ken Museth
NVIDIA Corporation



Kimball Thurston
Wētā FX Limited



Matthew Low
DreamWorks
Animation



Michael Min
Adobe Inc.



**Michael B.
Johnson**
Apple Inc.



Nick Porcino
Pixar Animation
Studios



Rachel Rose
Industrial Light &
Magic



Rebecca Bever
Walt Disney
Animation Studios



Ross Dickson
Amazon Web
Services, Inc.



Scott Dyer
Academy of Motion
Picture Arts and
Sciences



Youngkwon Lim
Samsung Electronics
Co. Ltd.

Behind the Screens

aswf.io/behind-the-screens



Our Mission

Increase the *quality* and *quantity* of open source contributions by establishing a *governance model*, a *legal framework* and a *community infrastructure* that lowers the barrier to entry for developing and using open source software.

Our Goals

- Provide a neutral forum to coordinate cross-project efforts, establish best practices and share resources.
- Develop an open continuous integration (CI) and build infrastructure to enable reference builds from the community.
- Streamline development for build and runtime environments through the sharing of open source build configurations, scripts and recipes.
- Provide individuals and organizations with a clear path for participation and code contribution.
- Provide better, more consistent licensing through a shared licensing template.
- Create working groups for exploration of new or larger projects.
- Focus on diversity and inclusion and raising the profile of software engineers in our industry.

Our Projects



Contributed By
Academy of Motion Picture
Arts and Sciences



Contributed By
ILM and Sony Pictures
Imageworks



Contributed By
Academy Software
Foundation



Contributed By
Lucasfilm



Contributed By
Academy Software
Foundation



Contributed By
Sony Pictures Imageworks



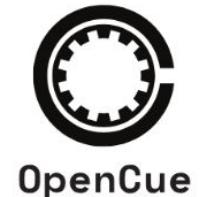
Contributed By
Samsung Electronics



Contributed By
Foundry



Contributed By
Sony Pictures Imageworks



Contributed By
Sony Pictures Imageworks
and Google Cloud



Contributed By
Lucasfilm



Contributed By
Open Effects Association



Contributed By
Larry Gritz



Contributed By
Pixar Animation Studios



Contributed By

Dreamworks Animation



Contributed By

The Academy of Motion
Picture Arts and Sciences



Contributed By

Allan Johns

Rongotai
Model
Train
Club
(RMTC)

Contributed By

Wētā FX

ASWF Landscape

The screenshot shows the ASWF Landscape website interface. At the top, there are navigation links for 'EXPLORE' (underlined) and 'STATS'. A search bar contains the placeholder 'Type / to search items' with icons for search, download, and refresh. Below the search bar are 'Filters' (dropdown), 'GROUPS' (dropdown with options: Open Source Projects, ASWF Members, ASWF Projects), 'VIEW MODE' (Grid selected, Card, Card icon), and 'ZOOM' (zoom in/out icons). The main content area is organized into several sections:

- Image Formats, I/O, and Processing Libraries**: Includes OpenEXR, OpenImageIO, OpenAPV, RIS, depix, FFmpeg, gatling, THE OPTIE PROJECT, libitm, openMVG, pfstools, Ptex, PySceneDetect, sequencer, three.js, and VMAF.
- Display and Review**: Includes OPEN REVIEW INITIATIVE, ASWF SANDBOX, t!Render, JERI, DV, and Open RV.
- Color Science**: Includes OpenColorIO, rawtoaces, ACES, ALEMBIC, COLOUR, and wetaFX PhysLight.
- Interactive Compositing and Painting**: Includes AUTHORITY FX, Aton, CinePaint, gimp, NATRON, and PhotoFlow.
- Scenes and Geometry**: Includes DPEL, /* ACADEMY SOFTWARE FOUNDATION USD Working Group, ALEMBIC, MESHROOM, AliceVision, COLLADA, ONEG, OpenSubdiv, OpenFlipper, OpenMesh, PhysX by NVIDIA, and USD.
- Software Foundation and System Administration**: Includes rez, ASWF LANGUAGE INTEROP, ASWF WORKING GROUP, AUTHORITY FX, ForestFlow, Lumis, pyString, QtPyConvert, and Scala Migrations.
- Pipelines and Frameworks**: Includes OPEN, AYON, blender, vortex, gaffer, kdenlive, Olive, Google Cloud OpenProductionData, PRISM, TACTIC, and adl.
- Timelines and Animation**: Includes trackchannel parser, OPEN ANNOTATION.IO, and timecode.

laswf.io

- Public list of open source projects in the animation and VFX industry
- Updates can be submitted via GitHub
- Goal is to have all active, open source projects in animation and VFX industries represented.

OPEN SOURCE FORUM

hosted by Academy
Software Foundation

Annual, by-invitation event that gathers business and technical leaders to shape the future of open source software across the motion picture and media industries.

opensourceforum.aswf.io

February 13, 2025
Los Angeles, CA + Virtual

2026 Date To Be Announced

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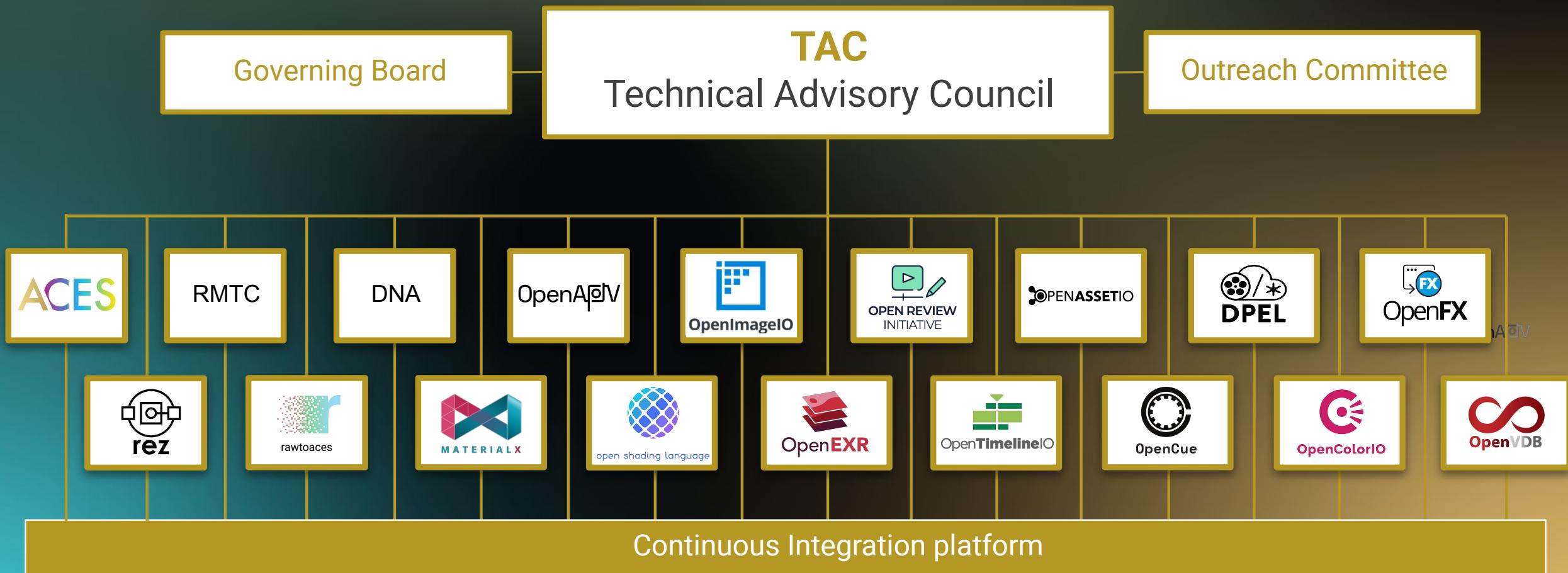
Annual developer focused event showcasing the latest from Academy Software Foundation projects along with other open source projects used for visual effects, animation, and image creation.

opensourceforum.aswf.io

August 10, 2025
Vancouver, Canada + Virtual

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Academy Software Foundation Structure





The Croods; courtesy of DreamWorks Animation



openvdb.org



How to Train Your Dragon: The Hidden World; courtesy of DreamWorks Animation

- First project adopted by ASWF in Sept. 2018; first project to graduate to adopted status in July 2019.
- Developed by DreamWorks Animation in 2012.
- C++ library for volumetric representations including fluid simulations, animated volumes and environmental effects.
- Academy Technical Achievement Award recipient.
- Key contributors include DreamWorks, Autodesk, DNEG, Industrial Light & Magic, NVIDIA, SideFX, Weta Digital.



OpenColorIO

opencolorio.org

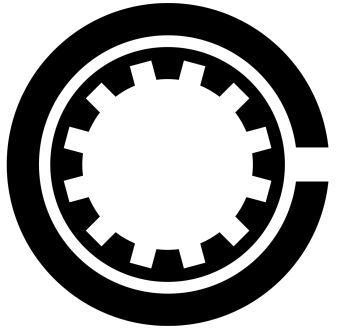


Spider-Man™: Into the Spider-Verse; all images courtesy of Imageworks

- Joined ASWF in Feb. 2019; adopted status in Nov. 2019.
- Developed by Sony Pictures Imageworks in 2003.
- Provides a consistent user experience across digital content creation applications; widely adopted in VFX and computer animation studios and software.
- Academy Technical Achievement Award recipient.
- Key contributors include Imageworks, Autodesk, DNEG, ILM, Foundry, Framestore.
- OCIO v2 released fall 2020, led by Autodesk.

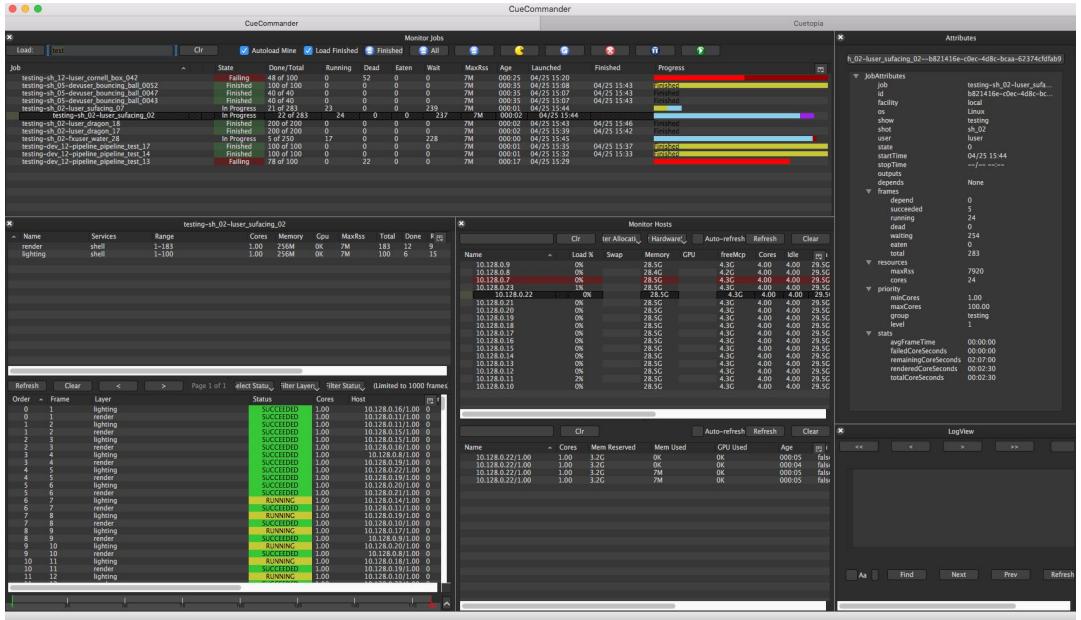


Smurfs: The Lost Village; courtesy of Sony Pictures Imageworks



OpenCue

opencue.io



OpenCue screenshot

- Joined ASWF in April 2019.
- Developed at Sony Pictures Imageworks as its internal render farm manager (“Cue3”); collaboration with Google Cloud to release as OpenCue in January 2019.
- Fully featured render manager for media and entertainment that can be used to break down complex jobs into individual tasks.
- Contributors include Imageworks, Google, Netflix, Microsoft, Amazon.
- Monthly releases over the past year, including adding Python 3 compatibility, Windows support, new documentation.



Images from *Solo: A Star Wars Story*. © and TM Lucasfilm Ltd. All Rights Reserved.



OpenEXR

openexr.org

- Joined ASWF in April 2019; adopted status in Nov. 2019.
- Developed by ILM in 1999; first release of a major open source project by a studio.
- High dynamic-range (HDR) image file format for high-quality image processing and storage; widely adopted standard in computer graphics.
- Academy Technical Achievement Award recipient.
- Key contributors include ILM, Disney Animation, Imageworks, Epic Games, Weta Digital, Pixar, Autodesk, and DreamWorks.
- OpenEXR 3.0 just released.



OpenTimelineIO used on Coco
for transitions and linking
media to the latest renders.

Image courtesy of Pixar Animation Studios.



OpenTimelineIO

opentimeline.io

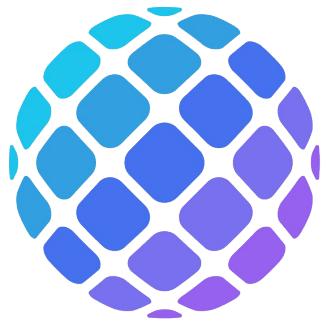
- Joined ASWF in July 2019.
- Developed by Pixar Animation Studios.
- Open source interchange format for editorial timeline information – clips, timing, tracks, transitions, metadata etc.
- Key contributors include Pixar, Netflix, DreamWorks, Autodesk.
- In Public Beta



The Angry Birds Movie 2; courtesy of Imageworks



Spider-Man: Far From Home; courtesy of Imageworks



open shading language

openshadinglanguage.org

- Joined ASWF in April 2020.
- Developed by Sony Pictures Imageworks; released as open source in 2010.
- De facto standard shading language for VFX and animation, ideal for describing materials, lights, displacement, and pattern generation.
- Academy Technical Achievement Award recipient.
- Key contributors include Imageworks, Animal Logic, NVIDIA, Pixar, DNEG, Autodesk.

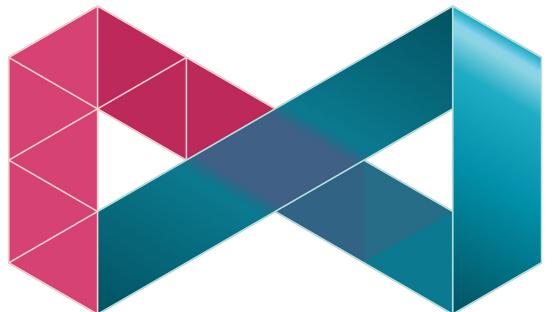
ILM Production tests using
MaterialX



ILM UNIFIED



STANDARD SURFACE



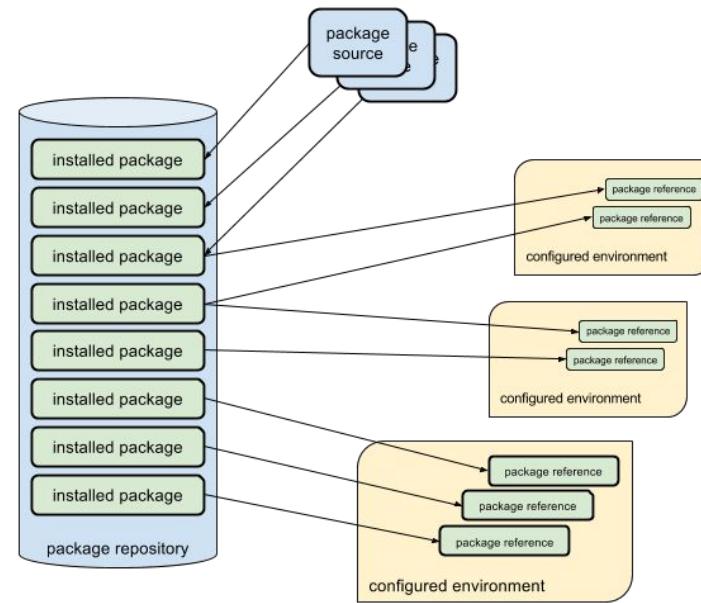
M A T E R I A L X

materialx.org

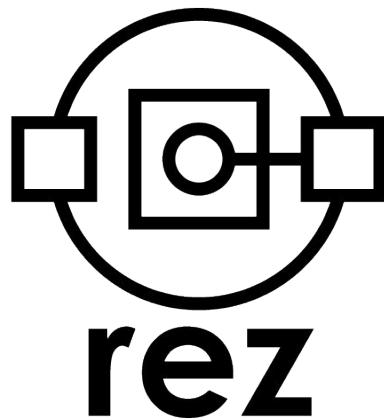
- Joined ASWF in March 2021.
- Open standard for representing rich material and look-development content in computer graphics, enabling its platform-independent description and exchange across applications and renderers.
- Launched at Industrial Light & Magic in 2012, MaterialX has been a key technology in their feature films and real-time experiences since Star Wars: The Force Awakens and Millennium Falcon: Smugglers Run.
- Key contributors include Sony Pictures Imageworks, Pixar, Autodesk, Adobe, and SideFX.



Typical package managers
install packages into an
environment



Rez installs packages once,
and configures environments
dynamically



rez-project.io

- Joined ASWF in February 2022.
- Developed by Allan Johns of Method Studios.
- Cross-platform package manager that leverages a central repository for storing packages instead of installing into each environment separately, reducing the time to create complex environments to just a few seconds.
- Key contributors include Luma Pictures, Method Studios, NVIDIA, and Shotgrid



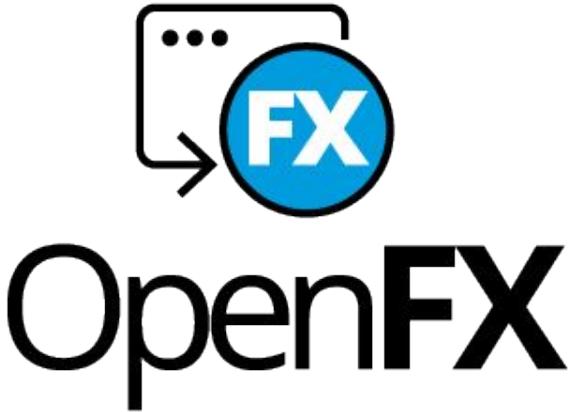
rawtoaces

rawtoaces.org

- Joined ASWF in January 2021.
- Software package that converts digital camera raw files to ACES container files containing image data encoded according to the Academy Color Encoding Specification (ACES) as specified in SMPTE 2065-1.
- Key contributors include AMPAS and Weta Digital



OpenFX Overlay Draw Suite



openeffects.org

- Industry-wide common interface between image-based visual effects plugins and host applications
- Used by Autodesk Flame, Foundry Nuke, Blackmagic Design DaVinci Resolve and Fusion, Sony Catalyst and MAGIX Vegas Pro, Assimilate Scratch, Filmlight Baselight, Boris FX Sapphire and Silhouette, RE:Vision Effects and more.
- Open, extensible C API currently version 1.4 with version 1.5 in development.

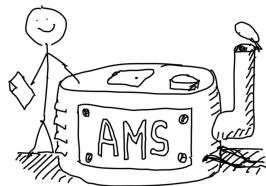


Launching with ASC Standard Evaluation Material II (StEM2), Animal Logic's ALab Phase 2, Intel's Volumetric Clouds Library and AWS character Noa.



dpel.aswf.io

Providing a vendor-neutral hosting platform and a uniform license agreement, to encourage, curate and publish production-grade sample assets for developers, researchers and educators, Digital Production Example Library is the conclusion of an Academy Software Foundation working group on assets.



ftrack



OPENASSETIO

openassetio.org



OpenAssetIO is an early stage open source interoperability standard between tools and asset management systems, developed by Foundry with proofs of concept and design input from 15 companies including DNEG, Pixar, Amazon Web Services, Animal Logic, Blizzard, and Blender. OpenAssetIO was the first project to join the Academy Software Foundation in sandbox stage.



DNEG's xSTUDIO



Autodesk's RV Player

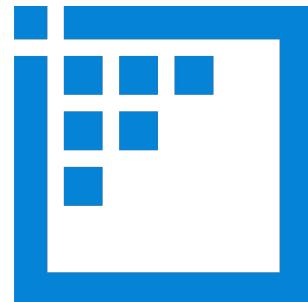


openreviewinitiative.org

An open source project with the mission to build a unified toolset for playback, review and approval of motion picture and related professional media, with Autodesk contributing RV, Dneg contributing xSTUDIO, Imageworks contributing parts of itView, and the three companies providing lead architects and maintainers for the project Technical Steering Committee.



Miles Morales (Shameik Moore) and Gwen Stacy (Hailee Steinfeld) take on The Spot (Jason Schwartzman) in Columbia Pictures and Sony Pictures Animation's *SPIDER-MAN™: ACROSS THE SPIDER-VERSE*.



OpenImageIO

openimageio.org

OpenImageIO is a library for reading and writing images, and a bunch of related classes, utilities, and applications. There is a particular emphasis on formats and functionality used in professional, large-scale animation and visual effects work for film. OpenImageIO is used extensively in animation and VFX studios all over the world, and is also incorporated into several commercial products.

OpenAPV

An open source project with the mission to develop a royalty-free, open-source, open standard video codec for professional video capturing and post-production.

- openapv-tsc@lists.aswf.io
- openapv-discussion@lists.aswf.io



ACADEMY COLOR ENCODING SYSTEM

ACES (Academy Color Encoding System) is a color management and image interchange framework designed to support motion picture and television production, mastering, and archiving workflows. Developed by the Academy of Motion Picture Arts and Sciences in collaboration with industry professionals, ACES provides standardized transforms and metadata practices for consistent color fidelity across diverse tools and platforms. Originating from early digital color pipeline research in the mid-2000s, ACES has since been adopted in numerous feature films and episodic projects. Its significance lies in its role as a vendor-neutral, open solution that ensures creative intent is preserved from on-set through post and into archive, making it a cornerstone of modern professional image workflows.

Working Groups

Machine Learning Working Group

A working group where the ML experts among our projects and members can meet, share expertise, better understand what ML-based tools are needed in our industry, and where helpful, spin off and guide ML-based open source projects aimed at addressing the specific needs of our film pipelines. [#wg-ml](#)

Dailies Notes Assistant (DNA)

The mission of the Project is to develop a tool designed to transcribe dailies meetings, analyze the content using an LLM, and provide a plugin system to integrate into production tracking software.

Rongotai Model Train Club (RMTC)

RMTC is a VFX-specific framework for simplifying the production and deployment of AI/ML models using well-tracked and rights-cleared datasets.

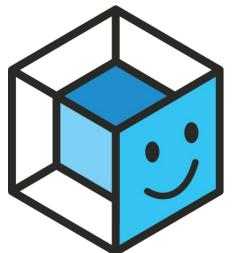
Working Groups



CONTINUOUS
INTEGRATION WG



DIVERSITY &
INCLUSION WG



USDWG



ZERO TRUST
WORKING GROUP

How to contribute

 Search Academy Software Foundation Need help or have a question? Contact us here

Contribute to an existing project:

- Submit a PR with a bugfix or new feature
- Pick existing GitHub issue as a sample project
- Integrate with a new app / contribute plugin
- Help improve project documentation
- Submit additional test cases
- Join the TSC discussion: dev mailing list, conf calls

Get involved with the TAC or Working Group:

- DevOps / CI expertise always useful
- Interest / expertise in security especially welcome
- Join the TAC discussions: mailing list, conf calls, working groups

More information at tac.aswf.io/engagement

Getting Involved in Projects

All of the projects hosted at the Academy Software Foundation are open and transparent, and welcome participation from anyone interested in the technology areas. Each project publishes their governance processes within their project repo (typically in the README.md file or in a GOVERNANCE.md file within the primary project repo or TSC repo) on roles within the community and how decision making is made.

TAC Meetings

Learn more about joining the public meetings of the Technical Advisory Council (TAC) on [the Meetings page](#)

Mailing Lists and Slack channels for hosted projects

Each project hosted at the Academy Software Foundation collaborates on open channels that are welcome for anyone in the community to participate in. See the below list of channels for each project.

All Slack channels referenced below are part of the [Academy Software Foundation Slack organization](#) unless otherwise noted.



Website: <https://opencolorio.org/>
Dev Mailing List: <https://lists.aswf.io/g/ocio-dev>
User Mailing List: <https://lists.aswf.io/g/ocio-user>
Slack: slack.opencolorio.org
Leads: Carol Payne - Imaging Technologist at Netflix, Inc



Website: <https://www.openexr.io/>

How to participate

Developers can join our mailing lists to stay informed about the code and our projects at lists.aswf.io.

Learn how your organization can support the Academy Software Foundation community at aswf.io/join.

Stay connected to us on Twitter at @AcademySWF and #ASWF

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THANK YOU!
Learn more at aswf.io

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