

OpenEXR Project Update

April 16, 2025



#ASWF

/* ACADEMY SOFTWARE FOUNDATION

OpenEXR Project Mission:

The goal of the OpenEXR project is to keep the EXR format reliable and modern and to maintain its place as the preferred image format for entertainment content creation.

Major revisions are infrequent, and new features will be carefully weighed against increased complexity. The principal priorities of the project are:

- Robustness, reliability, security
- Backwards compatibility, data longevity
- Performance - read/write/compression/decompression time
- Simplicity, ease of use, maintainability
- Wide adoption, multi-platform support - Linux, Windows, macOS, and others

OpenEXR is intended solely for 2D data. It is not appropriate for storage of volumetric data, cached or lit 3D scenes, or more complex 3D data such as light fields.

Technical Steering Committee



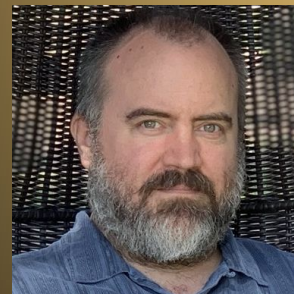
Cary Phillips
Industrial Light & Magic



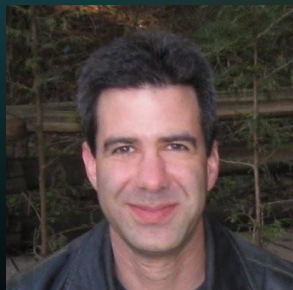
Christina Tempelaar-Lietz
Industrial Light & Magic



Joseph Goldstone
ARRI, Inc



Kimball Thurston
Wētā FX



Larry Gritz
Sony Pictures Imageworks



Nick Porcino
Pixar Animation Studios

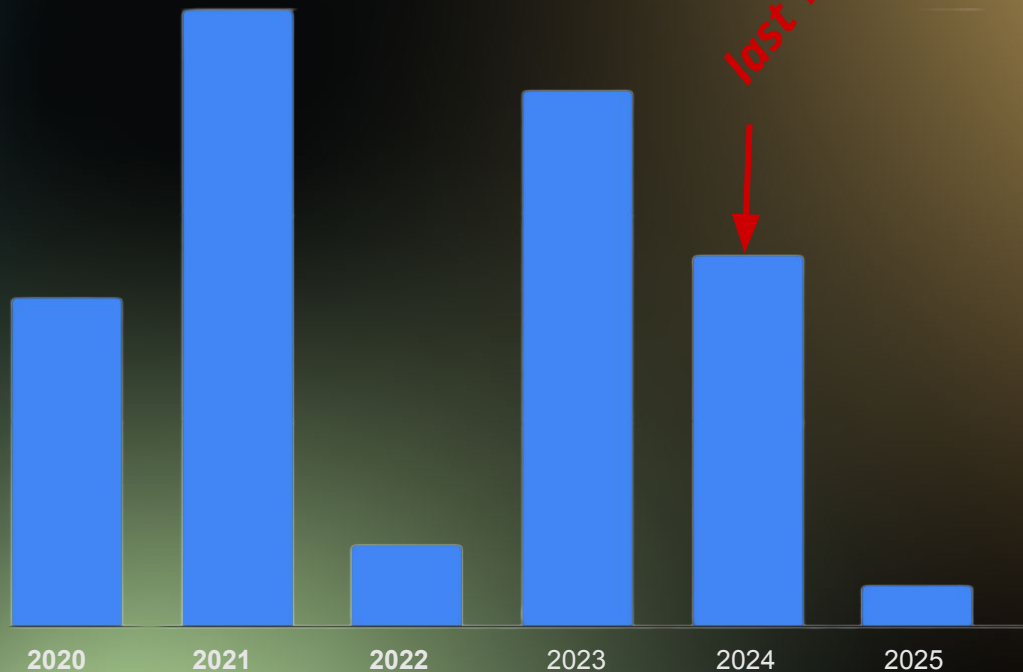


Peter Hillman
Wētā FX

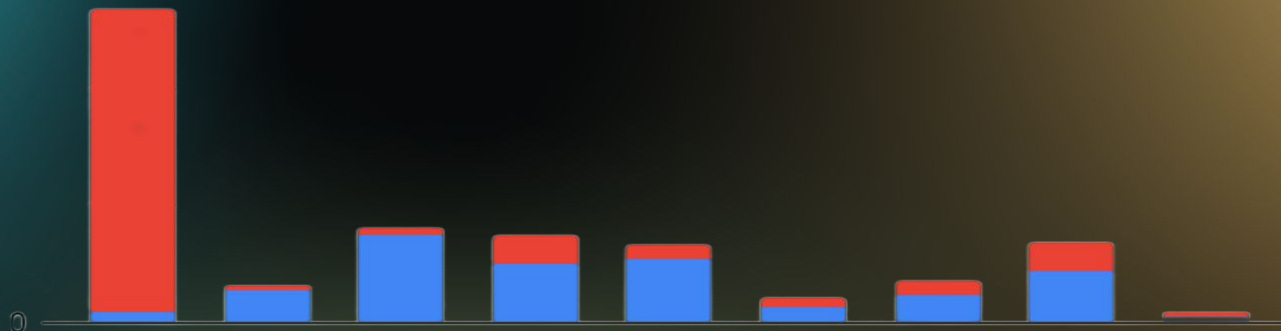


Rod Bogart
Epic Games

OpenEXR/Imath Releases

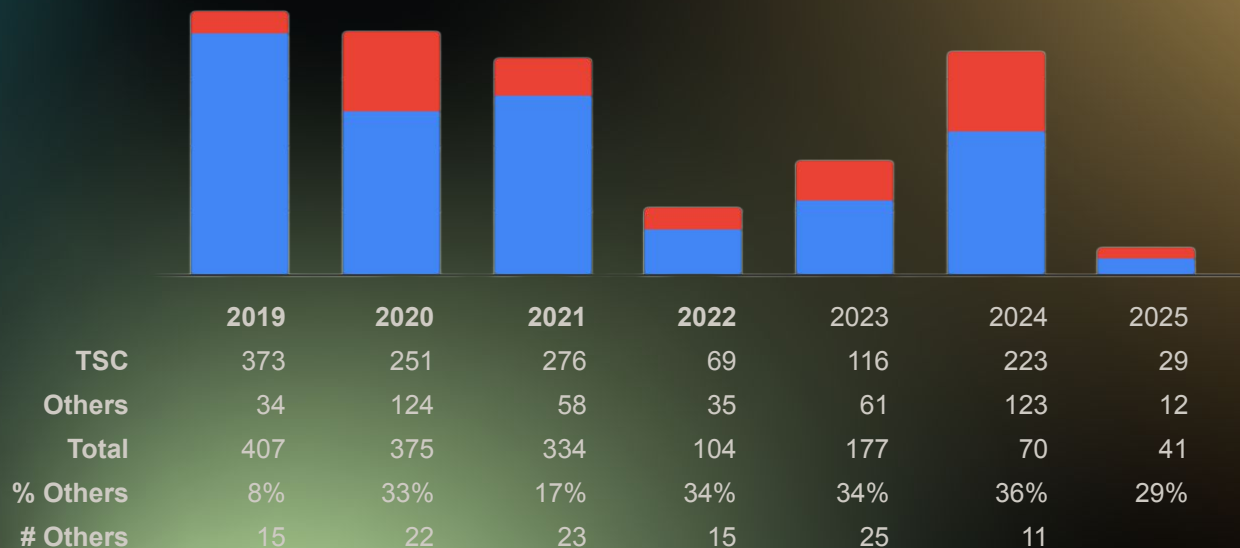


Commits: TSC Members vs. Others

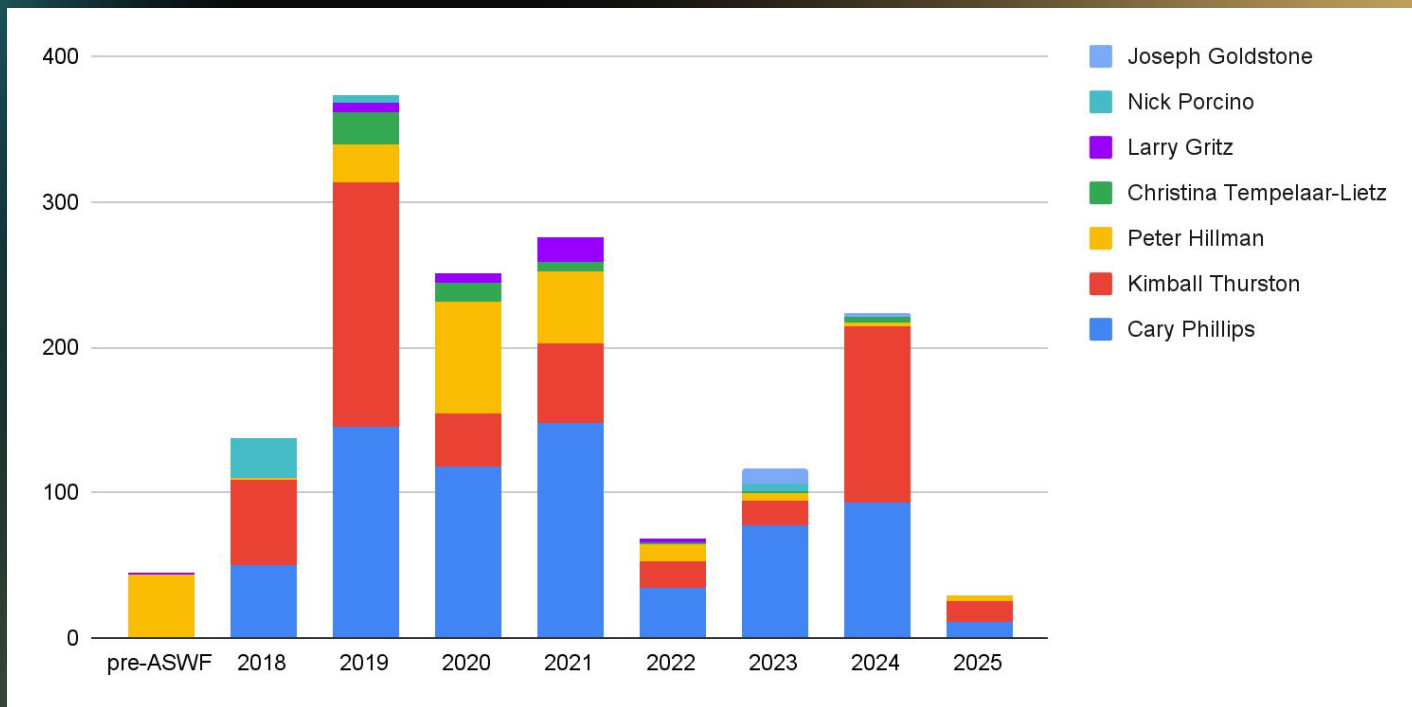


	pre-ASWF	2018	2019	2020	2021	2022	2023	2024	2025
TSC	45	137	373	251	276	69	116	223	29
Others	1299	19	34	124	58	35	61	123	12
Total	1344	156	407	375	334	104	177	70	41
% Others	97%	12%	8%	33%	17%	34%	34%	36%	29%

Commits: TSC Members vs. Others



Commits: TSC Members



Roadmap: 2024

1. ~~Core/Multithreading in the C++ API~~ *Done! (mostly)*
2. ~~Rewrite OpenEXR python bindings in pybind11~~ *Done!*
3. Finish Imath port to Pybind11 *meager progress*

2024/2025: Improvements/New Functionality:

- New compression codec: HTJ2K (High-Throughput JPEG-2000)
- New tool: `exrmetrics`
- Miscellaneous build improvements:
 - Better CI test, validation
 - Gradual progress on pybind11 Imath bindings
- OSTIF Security Audit
 - 4 vulnerabilities/bugs (via fuzzing)
 - Proposed better fuzzer
- OCIO Color Interchange Forum

Coming soon.. (hopefully):

- 2025 VFX Reference Platform: OpenEXR v3.4 (or v4.0? Not sure)
- Finish Imath port to Pybind11 (and `pip install imath`)
- Improved fuzzers

Project Weaknesses/Needs...

- Windows support
- Hardware-we-don't-have support
- Widening the contributor community
- Transition planning

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