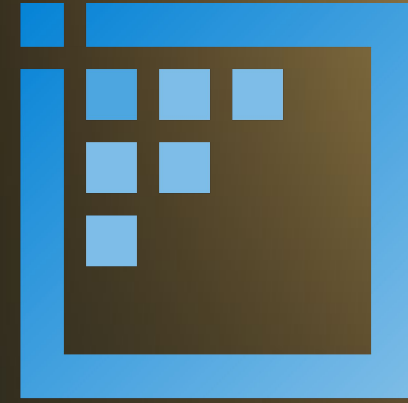


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OpenImageIO

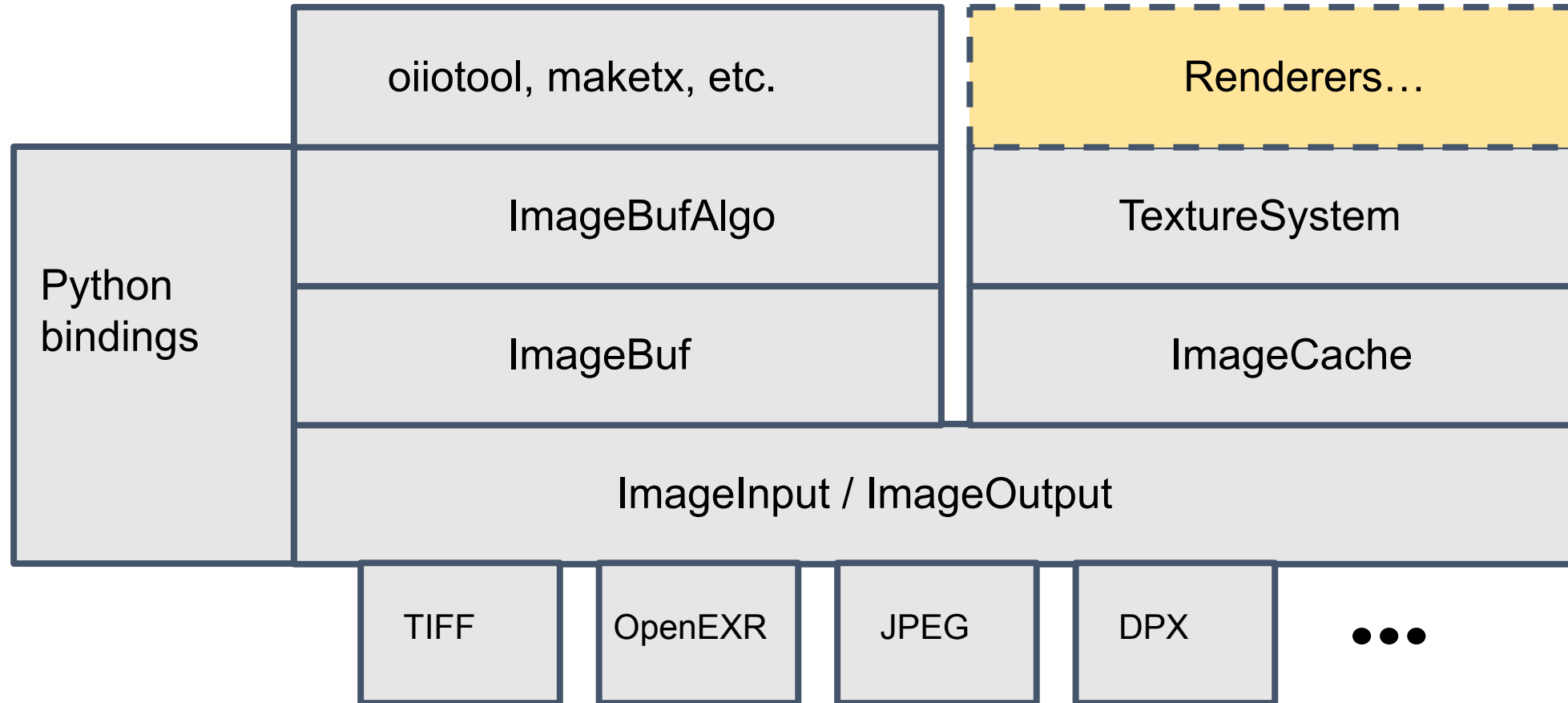
**2025 Annual Review
+ graduation request**

Mission

OpenImageIO is a toolset for reading, writing, and manipulating image files of any image file format relevant to VFX / animation via a format-agnostic API with a feature set, scalability, and robustness needed for feature film production.

Major OpenImageIO Components

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Ecosystem role

- Founded by Larry Gritz in 2008, joined ASWF in 2023
- TSC: Sony Pictures Imageworks, Wētā Digital, Blender, ARRI, Disney TV, Animal Logic, Autodesk, Laika
- Dependency of (ASWF+): Open Shading Language, OpenColorIO, MaterialX, OpenUSD, ...
- Depends on (ASWF): OpenEXR, OpenColorIO, OpenVDB
- Embedded in: Maya, Houdini, Katana, Blender, Arnold, 3Delight, Gaffer, ...
- Used in approximately all studio pipelines???

ASWF year highlights

- 396 git commits by 41 unique contributors.
- OpenImageIO 3.0 release (Nov)
- Release branch patches on the 1st of every month
- We now distribute Python wheels for every release
- Dev Days: 13 merged PRs in Fall 2024, 5 in Spring 2025
- OpenSSF: Passing 100%, Silver 95% (was 87%), Gold 78% (was 65%)

OpenImageIO 3.0: released fall 2024

- Removed long-deprecated APIs, bumped many dependency mins
- OCIO is now required – more consistent color management
- More robust building
- Many key dependencies will now “auto-build” if missing
- New formats: JPEG-XL, R3D
- IBA de-mosaicing of raw images
- New oiiotool commands: --cryptomatte-colors, --demosaic, --buildinfo, --ocionamedtransform, --popbottom, --stackreverse, --stackclear, --stackextract
- Hundreds more fixes and enhancements

Commits science June 2024 - By contributor

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- Aleksandr Motsjonov (*) (*)
- Andy Chan (*)
- Ankit Sinha (*) (*)
- Anton Dukhovnikov (*)
- Aras Pranckevičius
- Basile Fraboni (*) (*)
- Bram Stolk (*) (*)
- Brecht Van Lommel
- Campbell Barton (*)
- Chad Dombrova
- Chris Hellmuth
- Curtis Black
- Danielle Imogu (*) (*)
- Danny Greenstein (*)
- Darby Johnston (*)
- David Adler (*) (*)
- Dharshan Vishwanatha (*) (*)
- Don Olmstead (*)
- Gerrard Tai (*)
- Jeremy Retailleau
- Jesse Yurkovich
- Joseph Goldstone
- LI JI (*)
- Larry Gritz
- Loïc Vital
- Luc Touraille (*)
- Lukas Stockner (*)
- Lydia Zheng (*) (*)
- Mikael Sundell
- Oktay Comu (*) (*)
- Sam Richards
- Scott Wilson
- Todica Ionut (*)
- Vlad (Kuzmin) Erium
- Ziad Khouri (*) (*)
- jreichel-nvidia
- kaarrot
- peterhorvath111 (*)
- pfranz (*) (*)
- vernalchen (*)
- zachlewis (*)

* dev days contributor

* first time contributor

Roadmap: 3.1 release this fall

- Self-build of more dependencies
- New formats: Ultra-HDR-in-JPEG, HTJ2K
- “Safer C++ APIs”
 - TIRED: passing raw pointers + strides + implied/hoped-for lengths
 - WIRED: passing *image_span* that holds explicit bounds & strides
 - requires more intentional declaration of memory layout by caller
 - callee can do bounds checking of accesses
- More improvements to color workflow and nomenclature
- Longer-term ABI stability
- Hundreds of new small features & improvements

Longer term roadmap / help-wanted areas

- **Ongoing part-time S-size tasks**
 - Support, issue investigation, dependency wrangling, CI, security, releasing (ongoing)
 - Windows
- **Short term M-size work**
 - Color management
 - Metadata strategy cleanup
 - Overhauls of: DSLR raw (especially metadata), HEIC, video/ffmpeg
- **L-size work**
 - Cuda/OptiX TextureSystem
 - Rust bindings

What's working?

- Used as extensively as ever, growing
- Essential part of the VFX software ecosystem
 - Hard to find a DCC or studio pipeline that doesn't use it
- New features still being added / improved
- TSC / meetings / extra eyes & hands
- Lots of contributions (OIIO has > 230 contributors)

Parting thoughts

-  Mackerel!

If 5-6 big companies who use OIIO extensively...

- Each had just 1 person dedicate **consistent** 20% time to OIIO...
- Mostly doing things their own company needs (+ some maintenance)...

 That would 2-3x the development velocity of OpenImageIO

- TAC: Can we graduate?

TAC Open Discussion