Language Interop WG

Academy Software Foundation (ASWF)

Wabi Foundation. 6.12.24.

Languages

ASWF Language Interop WG

- Dedicated to providing **C++** interoperability, and between various programming languages, each as sub working groups:
  - **C**
  - **Python**
  - **Rust**
  - **Swift**
- Other languages to be identified by the **TAC/TSC**, if an existing **ASWF** project and/or member company are supportive of interoperability between a future language.
- Empowering all software development by providing seamless interoperability of **ASWF** APIs through their common, standard existing **C++** implementations.

Goals

ASWF Language Interop WG

- Collaboration with the **ASWF** in the mission to allow all of its existing projects and libraries to interop with these other programming languages, following each respective language's best-practices and standards.
- Through the availability of plugins and other tooling to aid in bringing existing libraries to each of the **ASWF Language Interop WG** sub working groups' programming languages.
- Creating ***familiar*** APIs to their existing **C++** implementations, and consistent across each of these programming languages.
- Supporting cross-platform support across all major operating systems.

Non-Goals

ASWF Language Interop WG

- Existing **C++** libraries should not be modified, or modified very little.
- Rewriting existing **C++** code into these other languages.

Responsibilities

ASWF Language Interop WG

- **ASWF Language Interop WG**
  - Organize the sub projects/WGs and make sure we're all on the same page with general design decisions, communication, etc.
  - Decide if a language is going to be included as an interop target (project will likely start with **C**, **Python**, and **Rust**, with **Swift** being the first language that will likely be accepted as well depending on how we decide to set the bar to pass for a language).
- **Sub Language WGs**
  - Build and maintain bindings.
  - Build and maintain documentation (for example, best practices for **C++** to **Python**).
  - Communicate with projects/support them.

Deliverables

ASWF Language Interop WG

- **OpenEXR, OIIO, Ptex, and USD, for Rust.**
- **OpenTimelineIO for Swift.**
- **USD** for **Swift.**
- Subsequent products to be identified by **TAC/TSC.**