

# ACO, a new compiler backend for GCN GPUs

*Wednesday, October 2, 2019 10:20 AM (45 minutes)*

Radv (the radeon vulkan driver) has for a long time used LLVM as the shader compiler backend. However, LLVM has a number of issues which led us to develop an alternative shader compiler that strongly leans on the shared nir intermediate language. This new compiler is showing significant gains for compile time as well as runtime performance.

We will talk about our pain points with LLVM and how ACO solves them, the overall design of ACO as well as the challenges we see and the plans we have for the future.

## Code of Conduct

Yes

## GSoC, EVoC or Outreachy

No

**Presenters:** NIEUWENHUIZEN, Bas (Google); SCHÜRMAN, Daniel (Valve)

**Session Classification:** Main Track

**Track Classification:** Talk (full slot) (closed)