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Rust GCC Front-end

Monday, September 12, 2022 3:00 PM (30 minutes)

Toolchain support for the Rust language is a question central to adopting Rust in the Linux kernel. So far, the LLVM-based rustc compiler has been the only option for Rust language compilers. GCC Rust is a work-in-progress project to add a fully-featured front-end for Rust to the GNU toolchain. As a part of GCC, this compiler benefits from the common GCC flags, optimizations, and back-end targets.

As work on the project continues, supporting Linux kernel development and the adoption of Rust in the kernel has become an essential guiding target. In this discussion, we would like to introduce the project's current state and consult with Rust-for-Linux developers about their needs from the toolchain; for example, how to prioritize work in Rust GCC or how we handle language versioning. Some particular topics for discussion:

- Procedural macros
- libcore, liballoc
- Language versioning
- Debug integration
- Unstable language features
- Bindings and FFI

I agree to abide by the anti-harassment policy

Yes

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