

Suitability of Rust for embedded software system applications

Short Description

Due to its capabilities, Rust is becoming an increasingly popular language in embedded software systems. However, there is a lot of legacy code in these systems and companies are reluctant to replace that code tested over years with something new. Embedded systems still heavily rely on C and C++ programming languages.

The goal of this project is to perform the following case study:

- Choose an open-source C/C++ embedded system project to migrate to Rust
- Setup a controlled experiment (measure effort)
- Migrate the project from C/C++ to Rust
- Create a report arguing the value of the achieved work (safety, security, lessons learned, design patterns that are hard to migrate)