AdaCore supports the Safety-Critical Rust Consortium

NEW YORK, US, June 13, 2024 /EINPresswire.com/ -- AdaCore is thrilled to be part of the Safety-Critical Rust Consortium alongside The Rust Foundation, Arm, Ferrous Systems, OxidOS, Synopsys, HighTec EDV-Systeme GmbH, TrustInSoft, Veecle, and Woven by Toyota. The primary objective of this group will be to support the responsible use of the Rust programming language in safety-critical software — systems whose failure can impact human life or cause severe environmental or property harm.

Safety-Critical Rust Consortium Membership is open to Rust Foundation member organizations and other invitees, such as industry, academic, and legal experts.

Work under the consortium will begin with the creation of a public charter and goals, and meeting minutes will be published on an ongoing basis. The Safety-Critical Rust Consortium will liaise with the Rust Project through Rust Foundation Project Directors and members of Rust Project teams. The Consortium's scope, which will be fully delineated in the charter, may include the development of guidelines, linters, libraries, static analysis tools, formal methods, and language subsets to meet industrial and legal requirements. The Consortium's deliverables will be developed and licensed in a manner compatible with other Rust Project endeavors.

The group may further shepherd Rust Foundation-funded implementation work, including grants to existing academic teams or FOSS projects. Any Rust Foundation-funded work will be submitted upstream, licensed as FOSS, and any specifications will be freely available. The group will further attempt to coordinate with and expand on existing safety-critical projects and standards including SAE JA1020.

Programming-language safety refers to a language's ability to prevent errors or undefined behaviors at compile time or runtime. On the other hand, "safety-critical" refers to a system's ability to operate without causing accidents or catastrophic failures that will result in harm to people, property or the environment. So, while safety-critical systems rely on languages that emphasize safety and security, such as Rust, programming tools are only one component of the overall strategy.

Tony Aiello is the Product Manager at AdaCore,

"At AdaCore, we focus on industries where safety, security, and reliability are paramount

including automotive, aviation, and space. AdaCore has decades of experience serving these industries with Ada, SPARK, and C++. Participating in the Safety-Critical Rust Consortium enables us to leverage our expertise to help the Rust community best position itself to serve the safety-critical community's needs."

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