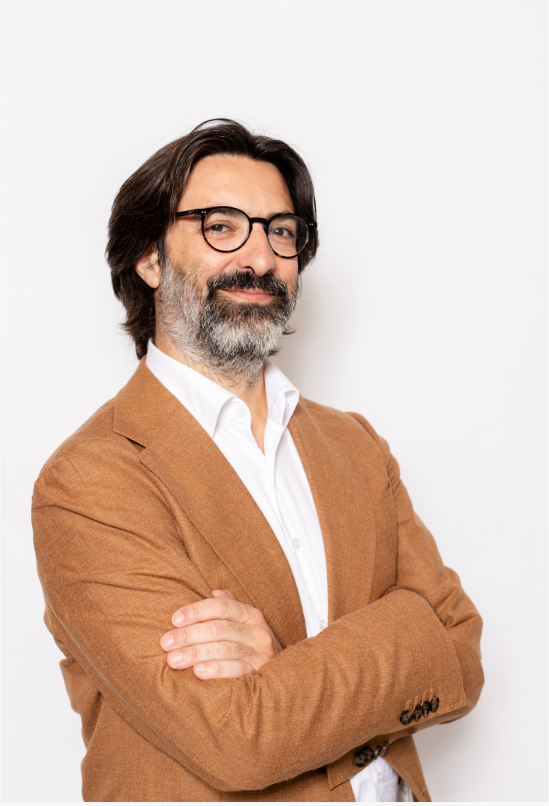
TrustInSoft and Ferrous Systems Partner to Bring Rust Code Analysis to TrustInSoft's Security Solutions

Collaboration brings together TrustInSoft's expertise in mathematical software verification and Ferrous Systems' deep knowledge of Rust



Benjamin Monate, CTO, TrustInSoft

TrustInSoft Logo

PARIS, FRANCE, February 25, 2025 /EINPresswire.com/ -- TrustInSoft, a leading provider of advanced software analysis tools and formal verification for software security, has formed a strategic partnership with Ferrous Systems, the leader in Rust solutions for safety-critical systems. Together, they will integrate support for Rust code analysis using Ferrocene, Ferrous Systems' qualified Rust compiler toolchain. This collaboration brings together TrustInSoft's expertise in mathematical software verification and Ferrous Systems' deep knowledge of Rust to help organizations enhance the security and reliability of their software.

A Shared Commitment to Memory Safety

Memory safety vulnerabilities remain one of the most significant cybersecurity challenges, particularly in critical industries such as automotive, aerospace, telecommunications, IoT, and medical. Recognizing this issue, the Cybersecurity and Infrastructure Security Agency (CISA) released revised guidance in January 2025 urging software vendors to eliminate memory safety risks by 2026.

TrustInSoft and Ferrous Systems are both members of the Rust Foundation's Safety-Critical Rust

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> *Benjamin Monate, CTO of TrustInSoft*

Consortium, supporting the responsible use of Rust programming language in safety-critical software, and a shared vision to provide developers with the tools they need to build inherently secure software. While Rust's ownership model and borrow checker provide a compelling solution for memory safety, many organizations continue to rely on C and C++ due to a historic lack of safer alternatives with comparable performance—until now. This partnership is designed to help companies transition to more secure software development practices, whether they are modernizing existing codebases or developing new applications.

"Security and reliability are fundamental in software development but achieving them requires more than just choosing a memory-safe language," said Benjamin Monate, CTO of TrustInSoft. "By working with Ferrous Systems and actively contributing to the Ferrocene language specification, TrustInSoft aims to provide organizations with the best of both worlds—proven formal verification methods and the benefits of Rust's safety guarantees—to help them eliminate vulnerabilities at the root."

Addressing the Challenge of Hybrid Codebases

A growing number of applications are now blending Rust and C/C++, leveraging Rust's memory safety features while maintaining compatibility with existing software infrastructure. Many organizations are also migrating specific modules to Rust while maintaining legacy C/C++ codebases due to the vast ecosystem of libraries and the high cost of full language transitions. This hybrid approach introduces new security challenges, particularly at the boundary between Rust and C/C++ code. Without rigorous analysis and verification, memory safety risks can persist, undermining the benefits of Rust's security model.

Combining TrustInSoft's extensive experience in exhaustive static analysis with Ferrous Systems' leadership in Rust tooling will ensure safe interoperability between Rust and C/C++ by providing organizations with solutions that:

- eliminate memory safety vulnerabilities through rigorous verification and analysis,
- ensure safe interoperability between Rust and C/C++, mitigating risks at integration points, and
- support compliance with emerging cybersecurity standards and best practices.

"Rust's safety features make it an ideal choice for modern, secure software development, but ensuring safe adoption in real-world applications requires a deep understanding of both new and existing codebases," said Florian Gilcher, Managing Director and Co-Founder of Ferrous Systems. "By partnering with TrustInSoft, we are enabling organizations to take a more structured, verified approach to deploying Rust alongside legacy code in safety-critical

environments."

What’s Next?
As part of this partnership, TrustInSoft and Ferrous Systems are working on new initiatives to provide organizations with enhanced memory safety solutions. In the coming months, additional details will be shared on how this collaboration will help companies strengthen their software security practices through advanced verification and analysis.
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About TrustInSoft
TrustInSoft is a leader in advanced software analysis tools and services that specializes in formal verification of C and C++ source code to ensure safety, security and reliability. Recognized by the US National Institute of Standards and Technology (NIST) for leveraging advanced formal methods, including abstract interpretation, TrustInSoft can mathematically guarantee analyzed software is free of critical runtime errors and vulnerabilities. TrustInSoft serves a diverse range of industries including automotive, aerospace, defense, consumer electronics, and IoT industries.

About Ferrous Systems
Ferrous Systems is a Berlin-based Rust consultancy with a collective 100 years of experience working with Rust. We provide training courses for programmers interested in furthering their Rust skills as well as customized programs for corporate software development teams. Our flagship product, Ferrocene, is the first open-source qualified Rust compiler toolchain for safety- and mission-critical applications, such as automotive, industrial and medical development. For more information, please visit our website or contact us directly at: ferrous-systems.com/contact/.

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