Sonar + axoft

Tango Software combines the power of AI with Sonar to achieve its code quality and coverage goals

SonarQube Server and SonarQube for IDE help the development team reach zero technical bugs and 60% code coverage.

The Challenge

Tango Software is a leading ERP company that provides administrative and accounting management software. Since 1988, Tango has grown by constantly incorporating new technologies and products to support a broad range of customers as Argentina's most prominent service management software provider.

In the years since it was founded, Tango has remained an agile software provider due to its ability to acquire and diversify its offerings. Today, Tango provides a powerful solution to thousands of clients, growing alongside a network of service centers. However, with growth and acquisition comes the challenge of integrating new technologies into their ecosystem without hindering the quality and performance of their software.

The Solution

To ensure that their software could support their continued success and growth goals, Tango's development team prioritized improving the quality of their codebase and avoiding technical debt. Tango chose SonarQube Server and SonarQube for IDE (formerly SonarLint)SonarLint to analyze their code for quality and coverage.

By leveraging the power of SonarQube Server and SonarQube for IDE in connected mode, Tango's development team checks code quality in their Visual Studio IDE, analyzes every pull request, and monitors code coverage daily to ensure new issues don't reach production. In addition to tools like SonarQube, Tango's development team uses AI code generation tools - GitHub Copilot integrated with Visual Studio and ChatGPT browser for C# coding assistance - to streamline its development process.

With SonarQube Server, SonarQube for IDE, and AI code generation tools integrated into their development process, Tango's development team has optimized how they address issues and support code quality. When developers generate code using their AI coding assistants or writing by themselves, SonarQube for IDE and SonarQube Server analyze it for issues. Tango has also integrated SonarQube Server with Azure DevOps using a web API provided by SonarQube. When issues are detected, they're created as work items in the team's Azure DevOps platform for proactive remediation. Tango uses work items to track issues (code defects, security bugs, and more) in their project codebase. Once the team addresses these issues, the code undergoes another scan before committing the changes. Meeting code quality and coverage standards is a vital business goal for Tango, and using Sonar to validate the code created by their developers and AI tools ensures that they maintain the integrity of the codebase.

"Sonar helps our development team confidently make both AI-assisted and human-developed code fit for production by reviewing and establishing rules of good programming practices to achieve better code and avoid typical errors. It also assists us in gauging the code coverage for each project, allowing us to identify areas that still require testing."

- Dario Flores, Technical Quality Specialist

The Results

With SonarQube for IDE, SonarQube Server, and AI tools seamlessly integrated, Tango's development team optimized issue resolution and code quality support. This process ensures that the new code undergoes rigorous validation before changes are committed. The results over the past two years showcase Tango's success in maintaining code quality and coverage goals for new Tango Delta's code, achieving zero technical bugs, and increasing code coverage from 20% to 60% in this first stage. The integration of GitHub Copilot has been particularly beneficial, improving code quality while avoiding redundant problem-solving efforts. According to Tango, Sonar has played a crucial role in establishing rules for best practices across their development team, enabling them to quickly and confidently produce AI-assisted and human-developed code fit for the future of their software.