

# CodeSonar's Deep Static Analysis Helps Keep Piper Networks MISRA-C Compliant

Piper's proprietary technologies are designed to operate in some of the most challenging environments, like subway tunnels, while maintaining pinpoint accuracy that improves performance for transit agencies.

Many of today's transportation systems are reaching a critical inflection point in their ability to expand to meet the demands of growing populations. Large urban centers such as New York City, London, and Singapore are experiencing unique challenges compared with smaller cities or those with more modern infrastructure. Considering the amount of daily traffic, aging infrastructure, and the absolute breadth of the system, these cities must explore the advantages of technologies that can help take giant leaps forward.

Piper's technology is used to determine the location of vehicles with unmatched positional certainty. The system is like a blanket of radio coverage, virtually surrounding the tracks with smart sensors that pinpoint train location down to a few inches. This valuable information helps operators increase rider throughput by allowing trains to run closer together and more frequently. Piper's solutions, experience, and thorough understanding of proximity technologies have led to successful deployments for major transit authorities.

In looking for a SAST vendor, Piper needed a tool that could keep their codebase clean and manage the latest developments in safety.

Piper Networks chose CodeSonar® for its helpful resources and ability to handle the exceptions in the local CodeSonar® database versus the source code, keeping Piper's source code clean and free of distractions. The deep static analysis that CodeSonar® provides allows Piper a very thorough check of the source code. "I would recommend CodeSonar because of its ability to quickly identify MISRA-C warnings," says Grant Gredvig, Sr. Software Engineer at Piper.

In addition, Piper Networks found the CodeSecure sales and support teams thorough in answering questions and flexible in finding the optimum licensing terms to fit their needs.

All said and done, CodeSonar® helps Piper Networks to achieve the safety and security that they need efficiently, allowing engineers to spend more time developing new and innovative features for Piper's customers.

"I would recommend CodeSonar because of its ability to understand issues. It's even found issues that I hadn't thought of looking for."  
-- Grant Gredvig Sr.  
*Software Engineer*