

Axivion for Medical Solutions

Save lives with high-quality medical software solutions.



Compliance

Ensure you comply with the most important guidelines and standards:



- IEC 62304 up to class C¹
- 100% of all current MISRA rules
- CERT
- C Secure Coding
- Customized rules
- and many more...



Maintainability

- Stop software erosion (a.k.a. technical debt) to increase the quality of your software
- Understand the impact modifications to the code will have to mitigate risks
- Deliver feature releases on time thanks to reduced defect rates
- Refactor legacy code efficiently without disrupting your product development
- React fast to security-related issues to protect sensitive data



Cost Saving

- 10% less development costs thanks to Axivion Architecture Verification
- 10-15% increase of productivity within the first year
- Shift-left approach: Detect bugs at an early stage to avoid the costs of fixing them later
- Increase your ROI by extending the life-time of your software
- On-board new team members faster, so they can be productive right from the start

"Thanks to Axivion Suite, we have the maintainability of our software under control, thereby safeguarding our long-term capacity for innovation."

– Fresenius Medical Care

¹ Certified by SGS-TÜV Saar GmbH for development of safety related software according to IEC 62304 up to Class C



Axivion Suite

Architecture Verification and Static Code Analysis which provide reliable results.

- Scalable tools which grow with your needs
- Seamless integration into your exiting CI/DevOps environment thanks to various plugins and CLI tools
- Fully customizable to meet your individual requirements
- Automated checks to ensure modifications to the code meet the relevant criteria of guidelines and standards: IEC 62304, MISRA, CERT, CWE etc.
- Advanced delta-analysis to help you identify new and track resolved issues
- Optional Tool Qualification Kit to support the qualification of your tool chain



Architecture Verification

Implementing software architecture verification ensures that the system's structure remains clear and clean. Deviations are flagged to check if the code complies with the architecture, and architecture erosion is stopped. Existing architecture debt can be addressed by targeted refactoring measures which you can monitor via the results report.

"The Axivion Suite provides us with vital support in ensuring our software quality. Its checks are not merely driven by existing standards, they even exceed the required level!"

- Dentsply Sirona

Key features of Axivion Architecture Verification

- Integrated modeler
- Interfaces to UML tools
- Software segregation
- Architecture reconstruction
- Architecture views for safety and security

Static Code Analysis

Our state-of-the-art static code analysis tool supports the development of safety-critical medical device software. Repetitive, full-scale checks are automated and the results delivered as comprehensive reports. Detecting issues at an early stage stops software erosion, saves resources and ensures your code maintains its high level of quality.

Key features of Axivion Static Code Analysis

- Metric monitoring
Complexity metrics, OO design metrics, best practice, customized, etc.
- Coding guidelines
For MISRA, CERT, CWE, customized rules, etc.
- Clone detection and management
Type I, Type II and Type III
- Cycles detection
Calls, include dependencies, customized, etc.
- Dead code analysis
Reachability analysis, analysis of libraries