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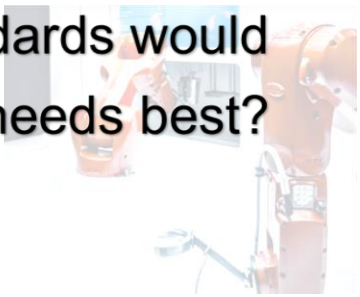
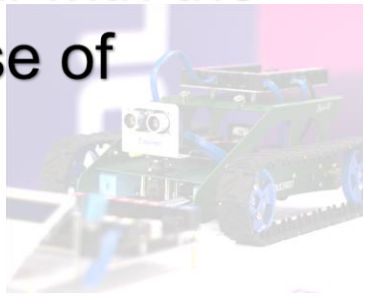
DE0802 Software implementation in modern C++, in accordance with leading coding standards

Have you ever thought about migrating your code to modern C++?

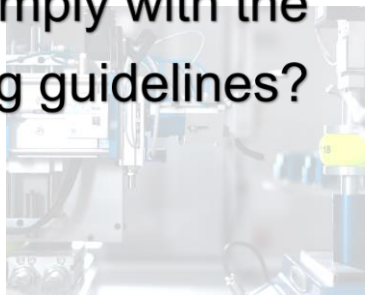
Do you know which C++ coding standards would suit your needs best?



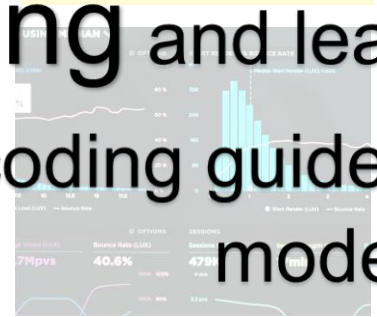
Do you know how to deal with the problems arising from use of modern C++?



Do you know how to adopt and comply with the AUTOSAR C++14 coding guidelines?



Join our training and learn more about the coding guidelines for modern C++.



exida excellence in *Dependable Automation*

Short description

This training introduces the C++ coding guidelines for the implementation of reliable non-safety-related, safety-related, and security-related systems. It introduces multiple C++ coding guidelines but focuses on AUTOSAR C++14 Coding Guidelines.
The learning success, understanding of C++-language specific concepts and problems, and how to avoid them are supported by examples, exercises, interactive quizzes, and hands-on workshop.

The training also includes the exida recommendations for adopting coding guidelines in your software development process.

Agenda and Content

- Background to coding guidelines
  - What are coding guidelines and why do we need them?
    - C++ complexity
    - Allowed/prohibited features
- Overview of Modern C++ coding guidelines
- AUTOSAR C++14 Coding Guidelines – inspired by existing coding guidelines
  - AUTOSAR C++14 Coding Guidelines history
- Traceability to existing standards
  - ISO26262, IEC 61508, ISO 21434, and other safety- or security-related standards
  - Other coding guidelines
- Overview of the AUTOSAR C++14 document
  - Guidelines classifications, categories, decidability
  - Guidelines format
- Overview of the AUTOSAR C++14 rules
  - Document structure inspired by ISO C++
  - Rules walk-through and quizzes
  - Introduction to checked and unchecked exceptions concept
  - Introduction to dynamic memory management (6.18.5) rules
- Adopting AUTOSAR C++ in the software development process
  - Process activities
  - Checkers
  - Tools management, configuration, and validation
  - Deviation procedure
  - exida recommendations
- Hands-on workshop

Who should attend?

- Software Development Engineers that implement software in C++ and/or are responsible for the deployment of coding guidelines
- Software Architects

Duration:	2 days à 4 hours (1 day à 8 hours if requested)
Language:	English The training material will be in English.
Location:	online
Certificate:	Each participant gets a letter of attendance.

For more information, please contact:

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