

C code

# DE0801 Software implementation in C, in accordance with MISRA C coding guidelines

# Have you ever heard about any coding guidelines? Do you know why coding guidelines for C language are required by the safety-related standards? Have you ever thought about using MISRA C in your project? Do you know how to adopt and comply with the MISRA C? Join our training and learn more about MISRA C and writing reliable

exida<sup>®</sup> excellence in Dependable Automation



## **Short description**

This training introduces the MISRA C coding guidelines and MISRA C key concepts.

It focuses on the implementation of reliable non-safety-related, safety-related, and security-related software.

The learning success, understanding of C-language-specific problems, and solutions to them are supported by examples,

exercises, and interactive quizzes during the training sessions.

The training also includes the exida recommendations for adopting MISRA C in your software development process.







#### **Agenda and Content**

- Background to MISRA C coding guidelines
  - What's MISRA C and why do we need it
  - MISRA C coding guidelines history
- Overview of the MISRA C coding guidelines
  - Guidelines classifications, categories, decidability.
  - Guidelines format
- Overview of the MISRA C directives and rules
  - document walk-through
  - exercises
- Overview of the MISRA C rules
- Introduction to the Essential Type concept
- Overview of security-related guidelines
  - Overview of MISRA C Amendments and Addendums
  - Overview of C Secure coding guidelines
  - Overview of CERT C coding guidelines
- Overview of MISRA C updates for C11 and C18
- Adopting MISRA C in the software development process
  - Compliance with ISO 26262 and IEC 61508 and other safety standards
  - Process activities
  - Tools management, configuration, and validation
  - Deviation procedure
  - exida recommendations





### 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.   |
|              |   |

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