TR-102



CERTIFICATION OF SOFTWARE (DO-178C)

This two-day course is tuned for the software engineer facing compliance with DO-178 for the first time or simply wanting to refresh their understanding of today's airborne software compliance processes – now including a comparison of the changes from DO-178B to DO-178C.

Understand the context of DO-178C with respect to the FAA, EASA, and other regulatory agencies/policy

Explore the DO-178C life cycle and objectives and learn what is applicable to your project

<u>Review real examples</u> and <u>obtain</u> <u>free templates</u> for project use

<u>Examine the changes in "C"</u>versus DO-178B

Understand the new supplements and how and when to use them

See what is pertinent for Military and UAS applications

Compare DO-278A and DO-248C to DO-178C

KNOWLEDGE INTEGRITY EFFICIENCY

Since 2000, Tammy Reeve, President of Patmos Engineering Services, has been helping applicants with DO-178 compliance. In 2008, the FAA awarded Patmos Engineering Services the contract for developing and delivering the "Complex Electronic Hardware" training course that was taught at the FAA Academy to DO-254 program auditors.

From both her DO-178 auditing experience and FAA training experience, Tammy developed this course offering for DO-178C applicants. Today, Tammy has taught this course to over 40 companies around the globe. The feedback has been overwhelmingly positive.

"Tammy delivers tailored training and certification support to her clients that is hands-on and practical. She is effective in helping the recipient define a usable and compliant process."

Karen Brack, Airborne Electronic Hardware Engineer, The Boeing Company

"Tammy brought us up to speed for DO-178C during an intensive, on-site course. Not only did she educate us on processes for certification, but she also provided some practical guidelines based on her years of experience in the field. The course materials provided thorough coverage of the certification process, templates, and references to the appropriate standards when further process details were sought."

Christopher Friedt, President & CEO, Friedt Professional Engineering Services, Inc

Patmos offers this and several other industry leading compliance training courses, which can be delivered on-site or on-line, and can be tailored to your specific needs. You can also pair these classes with any other Patmos consulting offering for a customized package.



DO-178C Training Outline

Engineering <mark>Servi</mark>ces,

- 1. Software Certification Related Information
 - Regulation and Policy

TR-102

- Safety Analysis and Deriving DALs
- FAA AC20-115D/EASA AMC 20-115D
- Latest policy orders, ACs and AMCs
- Software Job Aid
- Issue Papers & CRIs
- 2. Where DO-178B/C Fits in the Certification Process
 - System and Software Process Relationship
 - Purpose and Charter of DO-178C/ED-12C
 - Objectives and Annex A
 - Software Approval Process
- 3. Overview of DO-178B/C Objectives and Lifecycle Data
- 4. Planning
 - PSAC
 - SDP
 - Transition Criteria
 - SVP
 - Software Configuration Management and SCMP
 - Baselines
 - Traceability
 - SQAP
 - Certification Liaison
 - SOI-1 (Planning)
- 5. Requirements Capture
 - High
 - Low
 - Derived

- 6. Design Capture
 - Description
 - Coding& Integration
 - SOI-2 (Development)
- 7. Verification, Analysis and Test
 - Verification Activities
 - Robustness
 - Structural Coverage Methods
 - Data and Control Flow Coupling
 - SOI-3 (Verification/Test)
- 8. Certification Liaison
 - Conformity
 - Production transition
 - Activities
 - SAS

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- SOI #4 (Final Review)
- 9. Additional Considerations
 - Tool Qualification
 - Previously Developed Software
 - Major and Minor Changes
 - Alternate methods
- 10. Changes from DO-178B to DO-178C
- 11. Overview of Supplements
 - DO-330 Tool Qualification
 - DO-331 Model-Based Design
 - DO-332 Object Oriented Technology
 - DO-333 Formal Methods
- 12. DO-278A and DO-248C

No Better Choice than Patmos.

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