MathWorks DO-178 Certification Advisory Service

MathWorks Consulting Services works with you to migrate your existing process to one that uses Model-Based Design to develop DO-178 compliant software. Customized to your specific environment, tools, and application, the DO-178 Certification Advisory Service will identify gaps in your current processes, develop a road map to an optimized DO-178 process using Model-Based Design, and work with you to deploy that road map. MathWorks Consulting Services prepares you to perform key software development and verification activities to satisfy objectives of DO-178C and its supplemental documents DO-330 (Software Tool Qualification Considerations) DO-331 (Model-Based Development and Verification) and DO-333 (Formal Methods).

The DO-178 Certification Service is delivered by senior-level MathWorks consultants with knowledge gained from years of developing high-integrity software in collaboration with customers in the aerospace industry. **MathWorks Consulting Services** helps organizations avoid common mistakes and reduce the time, effort, and cost to develop high-integrity software that satisfies DO-178 objectives.

MathWorks Consulting Services works with you to:

Perform key activities to comply with DO-178

- Requirements traceability
- Requirements-based testing
- Model standards checking
- Model and code coverage
- Code reviews, traceability, and analysis
- Test case generation and design analysis
- Tool configuration and code generation
- On-target testing of algorithms
- Tool qualification using the DO Qualification Kit
- Generation of DO-178 process artifacts

Plan and execute

- Migrate your company's existing development process using a phased approach to achieve efficiency gains

Train your team

- Learn how to apply and fully leverage Model-Based Design to maximize benefits and satisfy objectives in DO-178 and its supplements

Next steps:

The migration strategy to an optimized software development process that uses Model-Based Design for DO-178 varies by company and application. MathWorks Consulting Services will tailor the process to best fit your needs. Steps may include:

Evaluation of existing processes and tools—MathWorks consultants review your current software development process, tools, application, required safety levels (A-E), and planning documents.

Gap analysis—Our consultants identify current challenges, process efficiency improvements, training, and other recommendations for migrating to a DO-178 process framework using Model-Based Design. We develop an actionable road map using a phased approach to achieve the recommended improvements.

Knowledge transfer—We provide instruction to show how Model-Based Design and its supported toolchain can be applied to satisfy objectives of DO-178 and its supplements.

Hands-on deployment support—MathWorks consultants support implementation of the recommended process to a specific project. Tasks may include modeling, simulation, code generation, and preparation of DO planning documents such as the PSAC.

FOR MORE INFORMATION:

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