

DO-178C Airborne Software Considerations

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DO-178C Frame

DO-178C (Software Considerations in Airborne Systems and Equipment Certification) is the dominant aviation software certification standard, with DAL-A the most stringent for software whose failure produces catastrophic conditions.

Architecture Implications

DAL-A airborne-software certification requires structural support for verification, traceability, and emerging continuously-improving AI/ML aviation software.

Architectural Mapping

Stage-gated commitment supports phase-decomposed software lifecycle. Composite admissibility supports multi-authority aviation operations. Lineage retention supports DO-178C traceability requirements.

Standard Evolution

DO-178C ongoing revision and emerging FAA AI/ML aviation software guidance both push toward structurally-supported architecture.