CertCore™ 178

Avionics DO-178C/ED-12C Software Certification Data Packages

CoreAVI's CertCore™ 178 is comprised of the certification evidences and data packages that are required to support the avionics software certification of CoreAVI's graphics and video software products. CertCore 178 includes safety certification packages for FAA DO-178C and EASA ED-12C certifications up to DAL (Design Assurance Level) A.

CertCore 178 is developed under the guidance of CoreAVI's FAA DER (Designated Engineering Representative) and delivered to customers with everything required to comply with FAA DO-178C and EASA ED-12C test code, test results, trace matrices and all related documentation. Certification data packages are available for the following CoreAVI products:

VkCore® SC (Vulkan-based graphics and compute driver)

ArgusCore™SC (Suite of OpenGL graphics drivers)

DecodeCore® (H.264/MPEG2 video decode drivers)

EncodeCore® (H.264/MPEG2 video encode drivers)

HyperCore™ (Graphics Hypervisor GPU Manager)

TrueCore™ (GPU Software Safety Monitor)

FEATURES AND BENEFITS

- Designed to facilitate FAA, EASA, and Transport Canada avionics software safety certifications
- Addresses the concerns in Certification Authority Software Team (CAST) Position Paper 29 - Use of COTS Graphical Processors (GCP) in Airborne Display Systems.
- DO-178C / ED-12C data package options are available for Design Assurance Levels A to D
- Delivery of Four Stage of Involvement (SOI) with audits conducted by DER and SQA
- Level A independence implemented on all activities independent of project designated assurance level (DAL)
- Complete Set of Test Cases and Test Procedures for all software products
  - Robustness of Test Procedures
  - 665+ HLR-based Test Procedures
  - 978+ LLR-based Test Procedures
  - Provides 100% Statement Coverage
- Extensive Technical Support
  - Certification package is adaptable to address customer specific safety requirements
  - FAA/EASA audit support available through to final avionics certification
  - Includes final FAA DER certification signoff, including release of FAA form 8110-3

CERTCORE 178 SAFETY CERTIFICATION PACKAGE

- Complete Planning, Requirements, Software Architecture, and Test Case Documentation
- Certification Plans
- Software Coding, Development, and Requirements Standards
- High Level Requirements
- Low Level Requirements
- Software Architecture Description
- Test Cases
- Software Verification Results
- Data & Control Coupling Analysis Report
- Structural Coverage Analysis Report (statement, DC, MC/DC)
- Traceability Matrices
- Software Accomplishment Summary
- Software Configuration Index
- Software Lifecycle Environment Configuration Index
- Process Artefacts available for Audit