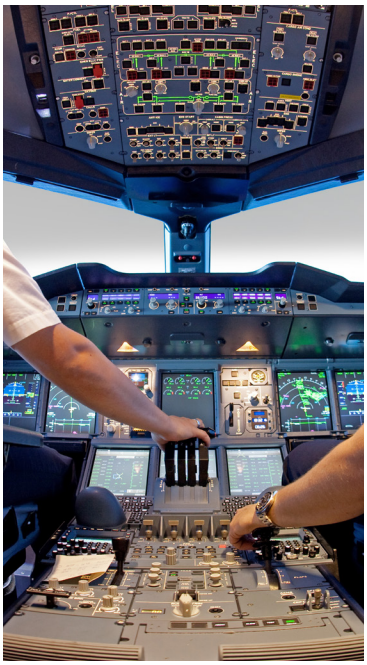
APPLICATION BRIEF

SCADE Solutions for ARINC 661 are aligned with the FACE Standard

The ARINC 661 standard defines a modular architecture separating the display system (CDS) from its applications (UA). Ansys provides workflows for both sides, fully aligned to the FACE technical standard.

Products Used:

SCADE Architect
SCADE Avionics Package
SCADE Solutions for ARINC 661



World-leading ARINC 661 solution:

- Model-based, target-agnostic building blocks
- Qualified code generation up to DAL-A / TQL-1
- Low-risk development for DO-178C / DAL-A
- Significant savings (50% or better) VS traditional development
- CDS & UA alignment to the FACE Technical Standard

Challenge

Cockpit displays are a critical piece of any air vehicle. They must provide the crew with timely and accurate information, allowing them to maintain situational awareness throughout the flight. Over the years, cockpit displays have become increasingly complex due to the growing sophistication of avionics and the need to meet safety-critical regulations (such as DO-178C guidance).

Two standards have emerged to ease cockpit interoperability and future-proof military programs:

ARINC

FACE™ Future Airborne Capability Environment

ARINC 661 is an international standard for aircraft cockpit displays. It promotes an architecture that cleanly separates user applications (what is displayed on the screen) from cockpit display systems (how things are displayed and how the crew interacts with them).

The FACE Technical Standard defines an approach to software development that promotes innovation and rapid integration of portable capabilities for the US DoD's military aviation domain. The standard includes ARINC 661 as an open architecture display rendering option which enables low-risk integration mixed-criticality software components.

Solution

As a long-time tool provider for safety-critical embedded software development, Ansys provides complete development solutions for ARINC 661 cockpit display systems (CDS) and ARINC 661 user applications (UA) with alignment to the FACE technical standard.