

## Presentation Abstract

Presentation Title	IV&V on Orion's ARINC 653 Flight Software Architecture
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Presentation Abstract	<p>The Aeronautical Radio, Incorporated (ARINC) specification ARINC 653 is a software time and space partitioning standard for Real Time Operating Systems (RTOSs). The ARINC 653 standard supports Integrated Modular Avionics (IMA) architecture allowing appropriate integration of avionics software of differing levels within a single hardware device. The application of ARINC 653 to critical systems presents developers, V&amp;V professionals and IV&amp;V organizations with challenges and opportunities. NASA flight systems developed using ARINC 653 RTOS and appropriately developed application software need to consider ARINC 653's unique features in the development of architecture, document structure, requirements development, verification planning, code development, code verification, code reverification, and hardware requirements. This presentation will discuss the experience of the IV&amp;V team supporting Orion software development and application of this experience to planning and executing future projects.</p>