

## ***System Verification throughout the Life-Cycle (TAS)***

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This presentation aims at describing recent activities carried out by Thales Alenia Space to improve the overall verification process of space systems.

In the first part of the presentation we provide an overview of an ESA-funded R&D project (MARVELS), concluded in 2015, which prototyped the use of model-based methodologies, processes and supporting infrastructures for AIV activities, and demonstrated benefits in terms of specification coherency, collaboration between disciplines, and improvement of the review process.

In the second part of the presentation we present the Test Campaign Manager (TCM), which was deployed on recent operational projects to support improvements of the verification process and support efficiently complex test campaigns.

TCM is a DOORS framework allowing to exploit a unique Data Base where the design requirements and verification control data are available.

This framework is designed to be as much as possible transversal to the different level of the product from element to system and in common to the different disciplines.

In the third part of the presentation we present the overall vision and status of deployment of model-based system and software engineering in Thales Alenia Space, with particular emphasis on V&V activities.

Finally we conclude by highlighting the direction to take all of this into account consistently in an overarching vision which encompasses system, avionics and software, across the different phases of development.