

**2nd ESA Workshop on  
Avionics, Data, Control and  
Software Systems - ADCSS  
2008**

**Report of Contributions**

Contribution ID: **0**

Type: **not specified**

## **Registration**

*Wednesday, 29 October 2008 08:30 (30 minutes)*

Contribution ID: 1

Type: **not specified**

## Introduction

*Wednesday, 29 October 2008 09:00 (15 minutes)*

Contribution ID: 2

Type: **not specified**

## **Results of the CORDET (Component Oriented Development Techniques) and DOMENG (Domain Engineering) activities**

*Wednesday, 29 October 2008 09:15 (30 minutes)*

Contribution ID: 3

Type: **not specified**

## **AOCS functional chain**

*Wednesday, 29 October 2008 09:45 (30 minutes)*

Contribution ID: 4

Type: **not specified**

## **ASSERT exploitation plan**

*Wednesday, 29 October 2008 10:15 (30 minutes)*

Contribution ID: 5

Type: **not specified**

## **Time and Space Partioning: WG recommendations of the working group on this subject**

*Wednesday, 29 October 2008 11:15 (30 minutes)*

Contribution ID: 6

Type: **not specified**

## **Status of Arinc 653 related activities CNES/ESA/Astrium**

*Wednesday, 29 October 2008 11:45 (1h 15m)*

- AIR-II: Arinc 653 complaint RTOS
- Study of I/O in Time and Space Partition
- ARINC study
- XTRATUM - A microkernel for TSP system



Contribution ID: 7

Type: **not specified**

## **Status of standardisation for Data Systems**

*Wednesday, 29 October 2008 14:00 (1 hour)*

- On-board communication services and protocols
- Microprocessors, IP Cores
- Communication buses and links

Contribution ID: 8

Type: **not specified**

## **Study of the automotive architecture standard AUTOSAR for embedded systems**

*Wednesday, 29 October 2008 15:00 (30 minutes)*

Contribution ID: 9

Type: **not specified**

## **Current avionics studies in the frame of ISIS project**

*Wednesday, 29 October 2008 16:00 (15 minutes)*

Contribution ID: **10**

Type: **not specified**

## **Panel session on Space Avionics Open Interface Architectures**

*Wednesday, 29 October 2008 16:15 (1h 30m)*

- Review of Action from ADCSS2007 (ARA Roundtable)
- Briefing on SAVOIR Advisory Group
- Priorities for Building Blocks and Interfaces -> Panelists: Members of SAVOIR Advisory Group

Contribution ID: **11**

Type: **not specified**

## **Introduction**

*Thursday, 30 October 2008 08:45 (15 minutes)*

Contribution ID: 12

Type: **not specified**

## **Model Based Development and Testing**

*Thursday, 30 October 2008 09:00 (30 minutes)*

Contribution ID: 13

Type: **not specified**

## **Application of Model-Driven Engineering to the Development of On-board Software: Benefits and Challenges**

*Thursday, 30 October 2008 09:30 (30 minutes)*

Contribution ID: 14

Type: **not specified**

## **Potential benefits of MDE for Space Engineering**

*Thursday, 30 October 2008 10:00 (30 minutes)*



Contribution ID: 15

Type: **not specified**

## **Model Driven engineering at EADS Astrium Space Transportation**

*Thursday, 30 October 2008 10:30 (30 minutes)*

Contribution ID: 16

Type: **not specified**

## **Model-Checking and Validating UML Models: Current Capabilities and Limitations**

*Thursday, 30 October 2008 11:00 (30 minutes)*

Contribution ID: 17

Type: **not specified**

## **AOCS/GNC Models and Auto-Coding at ADS Astrium**

*Thursday, 30 October 2008 12:00 (30 minutes)*

Contribution ID: **18**

Type: **not specified**

## **Operational use of MDE Process and Component Models at Thales Alenia Space on the GlobalStar2 Project**

*Thursday, 30 October 2008 12:30 (30 minutes)*

Contribution ID: **19**

Type: **not specified**

## **The AADL for Real-Time Modelling**

*Thursday, 30 October 2008 14:00 (30 minutes)*

Contribution ID: 20

Type: **not specified**

## **System and Software Co-Engineering: Performance and Verification**

*Thursday, 30 October 2008 14:30 (30 minutes)*

Contribution ID: 21

Type: **not specified**

## **Requirements-based and Model-based Testing**

*Thursday, 30 October 2008 15:00 (30 minutes)*

Contribution ID: 22

Type: **not specified**

## **On Board Model Checking for Space Applications**

*Thursday, 30 October 2008 15:30 (30 minutes)*



Contribution ID: 23

Type: **not specified**

## Round Table

*Thursday, 30 October 2008 16:30 (1h 30m)*

- Experience and lessons learnt from the use of modelling techniques in onboard software development
- Maturity of current methodology and tools in support of the model based software engineering (SysML, [HRT-]UML, OCL, assertions, AADL, SDL, SCADE, Matlab, etc.), and how to apply them to the onboard software development process
- What is the new (model) life cycle and how does it impact current practices?
- What is the current coverage of this process by supporting methodology and tools?
- What is the added value of deploying fully or partly the MBSE process wrt the current practices for onboard software development?
- What is blocking us from a wider use of model-based approaches?
- What R&D actions are required to facilitate the adoption of such a process?
- How to ensure model consistency along the life cycle of avionics and software? Is there a life cycle for models?

Contribution ID: 24

Type: **not specified**

## Introduction

*Friday, 31 October 2008 09:00 (5 minutes)*

Contribution ID: 25

Type: **not specified**

## **Requirements Modelling as an Effective Approach for Requirements Verification**

*Friday, 31 October 2008 09:05 (25 minutes)*

Contribution ID: 26

Type: **not specified**

## **Extended and optimised ISVV Process**

*Friday, 31 October 2008 09:30 (25 minutes)*

Contribution ID: 27

Type: **not specified**

## **ISVV focused on FDIR Verification**

*Friday, 31 October 2008 09:55 (25 minutes)*

Contribution ID: 28

Type: **not specified**

## **Cost Effective IV&V Planning Activity derived form Experiences on JAXA's Spacecraft Projects**

*Friday, 31 October 2008 10:40 (25 minutes)*

Contribution ID: 29

Type: **not specified**

## **A Galileo Perspective on ISVV**

*Friday, 31 October 2008 11:05 (25 minutes)*

Contribution ID: **30**

Type: **not specified**

## **ISVV process for autocoding**

*Friday, 31 October 2008 11:30 (10 minutes)*



Contribution ID: **31**

Type: **not specified**

## **Proposed changes to the ISVV guide**

*Friday, 31 October 2008 11:40 (25 minutes)*

Contribution ID: **32**

Type: **not specified**

## **Round Table**

*Friday, 31 October 2008 12:05 (55 minutes)*