

Embedded Systems Patrick FARAIL INGEQUIP Project







INGEQUIP Project Perimeter



INGEQUIP project synthesis



Define Methods & Integrate Tools to get equipment, software & hardware and product architecture

> right first, safe earlier 30% gain on cycle and cost

Integrate Industrial & Research products in a co-engineering agile development process



Project organisation

Industries: Airbus, Airbus D&S, SAGEM, Continental, THAV SME/ETI : ACTIA SME/Consulting : Systerel SME/Editors: ASTC Design Partners, Space Codesign (Ca) Academics: IRIT, ISAE, LAAS, ONERA WP 1 : HW/SW co-design WP 2 : Components based approaches WP3 : V&V means 09/2014 -> 12/2016 - 260 p.m

SAINT EXUPERY





WP1 : Hardware/Software co-design

WP2 : Components based approaches







Problem to solve 1 : Performance prediction





Problem to solve 2 : Resource usage analysis





Problem to solve 3 : New equipment development process





Other issues

- Link between Architecture models using AADL/UML/SysML and co-design frameworks
- Interface with environment : legacy components, External bus, continuous world
- Different granularities of models
- Reuse tests benches at different level : Architecture definition, HW low level
- Link between SystemC models and HLS
- Tools qualification preparation

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WP 3 : V & V Means

Formal Based System Engineering Or How to integrate Formal methods in MBSE





RDV in 2015 & 2016 for project results communications

If you want to integrate the INGEQUIP project you are welcome @ IRT Saint-Exupéry

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Merci de votre attention

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