



Rigorous methodologies used in ATM projects

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r e t u r n o n i n n o v a t i o n

DPRS/SAE: a double competence

- In aeronautics
 - Cf. Bruno's presentation
- In Computer Science, at all levels of System/Software Life Cycle
 - Requirements: use of the GORE methodology
 - Goal Oriented Requirements Engineering
 - Architecture: use of SysML
 - System Modeling Language
 - Design: use of UML
 - Unified Modeling Language
 - Implementation of distributed architecture: use of HLA and GENESIS
 - High Level Architecture
 - Software implementation: Java, C++ ...
 - TBN: most of the used CS tools are embedded in a common SW platform: ECLIPSE

DPRS/SAE: a few European projects

- **SAFEЕ: Security of A/C in the Future European Environment**
 - Building of User's Requirements Document and System RD with Objectiver, a GORE methodology
- **NACRE: New Aircraft Concepts Research**
 - (part of the) Design of a new Cabin Concept
 - V&V of the cabin concept according to the EASA CS 25
 - Use of UML for design and validation, and DOORS for verification to CS 25 conformity
- **INOUI: INovative Operational UAV Integration**
 - Static view (architecture) of ATM with A/C and UAV
 - Dynamic view (behaviour) of UAC and A/C when conflicts
 - Identification of UAV Safety requirements from Air Rules "Annex II of IACO"
 - Use of UML and MASC (ONERA methodology)