

SE-MBARC-02
Practical Model Based Systems Engineering
with ARCADIA method and Capella tool – 3 Days – 6 modules
Agenda

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Last update: **August 20**

- Learning by practicing a model-based approach from requirements to the detailed definition of system architecture
 - Positioning with regards to the technical processes of ISO 15288:2015
 - Use and implementation of the ARCADIA method
- Practice on a case study
 - Agricultural Aerial Drone as a System of Interest
 - Implementation of the different architecture levels of the ARCADIA method
 - Implementation of the various model elements and diagrams proposed by the CAPELLA tool
 - Use of the CAPELLA tool for practice



- Competencies to acquire
 - C1: Learn the ARCADIA method with the main concepts and diagrams to use during the system definition down to the physical layer
 - C2: Learn how to apply the ARCADIA method with the Capella tool
- Target public
 - Systems Engineers, Architects, Designers, and Project Managers who want to deploy MBSE with the Aradia method in their team and a practical use of the Capella tool.
- Prerequisites
 - First knowledge on Requirement Engineering
 - Good quality: Single goal, affordable, verifiable, ... « System shall... »



- The fundamentals of Systems Engineering
- Model-Based Systems Engineering
- Overview of ISO 15288:2015
- ARCADIA method
- Hands on Capella tool
- Case Study presentation



- Glossary of Terms
- Relation between OA layer and standard processes
- OA models and diagrams in CAPELLA
- OA Best practices
- Practical work: Operational Analysis on UAV Agri case study



- Glossary of Terms
- Relation between SA layer and standard processes
- SA models and diagrams in CAPELLA
- SA Best practices
- Practical work: System Analysis on UAV Agri case study



- Glossary of Terms
- Relation between LA/PA layers and standard processes
- LA models and diagrams in CAPELLA
- LA Best practices
- Practical work: Logical Architecture on UAV Agri case study



- Glossary of Terms
- PA models and diagrams in CAPELLA
- PA Best practices
- Practical work: Physical Architecture on UAV Agri case study



- Capella advanced features
 - Replicable Elements
 - Library Management
- Viewpoints & extensions
 - Viewpoint management
 - System To Subsystem Transition
 - xHTML documentation generation
 - PVMT
 - Requirements Viewpoint
 - M2Doc introduction
- More extensions and conclusion

