APPLICATION OF MBSE PROCESS FOR UNMANNED AERIAL SYSTEM (UAS) DESIGN

Patrick Fardeau, Praveen Mysore, Kiran Jacob Dassault Systems 10 rue Marcel Daaasult CS 40501, 78946 Vélizy-Villacoublay Cedex France

Abstract

As the number and complexity of systems continues to grow, the effective definition, modelling and simulation of these individual systems, and their interaction with other systems, becomes increasingly important. Systems engineering is essential to avoid detecting unexpected system interactions during the validation and verification phases of the product development process. Dassault Systmes solution delivers a unique solution that fully enables and supports the cross-discipline systems engineering development process - from systems definition through to modeling, simulation, verification and business process management. A solution, which provides a unified and integrated approach by managing the overall development process with cross discipline definition, and relationships that exist between the different systems. The Unmanned Aerial System (UAS) use case undertaken highlights the capability of the 3D EXPERIENCE platform as a framework for product development following MBSE process.