

Poster Session (P)

Poster Lunch (1)

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THE DESIGN AND APPLICATION OF A SPACECRAFT SIMULATION PLATFORM BASED ON INTEGRATION OF MULTI-SOURCE HETEROGENEOUS MODEL

Abstract

Spacecraft is a complex large coupling system that involves multi-disciplinary fields. In order to realize the development, integration, simulation and test of spacecraft or other complex systems, this paper presents a concept which is based on meta-model for integrating and simulation, including using a variety of data association methods, realizing the data interaction with access to each other between inter-disciplinary models; realizing integration of multi-source heterogeneous models based on FMI interface standard; realizing script driven automatic test. Based on the above technical ideas, we designed integrated simulation platform for spacecraft. This platform has good openness, and offers general curve charts and 3D scene which is developed by Unity for checking simulation results. This platform can help users to realize the simulation analysis of space missions quickly, to evaluate and test performances of spacecraft.