

SPACE SYSTEMS SYMPOSIUM (D1)
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SOS MODELING AND SIMULATION METHOD FOR MULTI-SATELLITE SPACE MISSIONS

Abstract

In order to reduce the time and cost, and improve the quality of multi-satellite space system design, especially forecasting the emergence of the system performance, system of system (SoS) modeling and simulation is adopted in space mission designs. First, a SoS modeling framework and its features of every layer are given and a new simulation model specification is proposed according to the information above. Then, based on XML (eXtensible Markup Language) and SRML (Simulation Reference Markup Language) advantages, two model configuration file examples are given using the new model specification. Finally, a model configuration file editor is implemented and the space mission simulation system is built which proved that the proposed description method is feasible.