

SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
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SIMULATION AND VERIFICATION PLATFORM DESIGN AND ANALYSIS OF CHINA COMPASS
NAVIGATION

Abstract

According to the system requirements, China Academy of Space Technology (CAST) has developed independently a simulation and verification platform of the navigation satellite to complete the project comparison, the algorithm analysis, the application development, the system maintenance, the analysis of system backup strategy and system upgrade strategy etc. This platform has become an important and effective tool to support the space segment construction and management of the Compass navigation satellite system. This paper introduces the functions, the design principle and the composing of the Compass satellite simulation and verification platform. Its application examples are given. Based on the current data of the satellites in-orbit, the application experience of the platform to evaluate the satellite performance in-orbit is summarized. At last, the outlook of the compatibility and the expandability to the platform for the next Compass global navigation system will be discussed.