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CREATION OF A SERVICE FOR MONITORING SATELLITE MANEUVERS

Abstract

One of the important tasks of space surveillance and space situation awareness is detection of satellite maneuvers. Due to the rapid increase in satellites in orbit, the chances of satellite collisions are also increasing. In this situation, it is important not only to predict the probability of a collision in time and to carry out evasive maneuvers in time, but also to analyze the results of the maneuvers performed. Obviously an effective method for detecting satellite maneuvers is required. We have recently proposed an efficient method for detecting satellite maneuvers. The method has a number of advantages over other methods that are designed to detect maneuvers. Computational tests of this method showed that for 1000 satellites, the TLE data processing time for the two epochs is approximately 1 sec. This shows that on the basis of this algorithm it is possible to create a service for monitoring satellite maneuvers.