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REVIEW ON SATELLITE VIRTUAL ASSEMBLY, INTEGRATION AND TESTING

**Abstract**

Assembly, integration and testing (AIT) activities of a space product account for approximately 15% of the total budget, and on average consume 25% of the schedule. The virtualization of AIT activities intends to anticipate to early project phases the product and organization AIT requirements, thus positively affecting these values. The virtualization process of the AIT activities of a satellite platform has great potential for improvements, so that such process captures lessons learned from each edition of a platform. The use of software for virtual analysis of the AIT implementation anticipates the occurrence of any non-compliance to the beginning of the project development, allowing them to be resolved effectively and efficiently, that is, fast and with little (or any) impact on the program. This paper reviews the concept of "Virtual AIT", and provides application analysis to its implementation. The paper concludes with observations concerning prospective future for the important discipline of satellite assembly, integration and testing.