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PRONT-AIT: FRAMEWORK FOR ASSESSING THE READINESS OF ASSEMBLY, INTEGRATION AND TESTING ORGANIZATIONS OF SPACE SYSTEMS

Abstract

This paper aims to present a framework capable of evaluating organizations' readiness that carries out AIT (Assembly, Integration, and Testing) activities of complex spatial systems through a set of process areas composed of specific and generic practices. The proposed framework was adapted from the CMMI – Capability Maturity Model Integration, which included the creation of new process areas focused on AIT activities, as well as new specific and generic goals and practices. To measure the level of implementation of each goal and generic practice, the evaluation guides of the Standard CMMI Appraisal Method for Process Improvement (SCAMPI) were used as a reference. This framework covers the organization's managerial process and the AIT technical process areas, attributing to each area a qualitative and quantitative value that reflects the level of readiness attributed to the AIT organization. This framework contributes to the management of space projects, in particular, to the assessment of the readiness of AIT organizations to determine whether they are capable of carrying out assembly, integration, and testing activities according to the requirements of the stakeholders of a specific space project.