Abstract

In the development of a system or software, ideally, it must be accompanied by an analysis that the system or software satisfied its objectives as well as the context development and implementation. One of the approaches that could be adopted to represent that a system or software achieves its objective is using assurance cases. Assurance cases can be developed using a structured argument where the claim related to the system, such as its objective can be supported by its context development and implementation as well as the logical structure and its supporting evidence. Several modeling languages can be adopted to representant assurance cases, namely, Goal Structuring Notation (GSN), Claim-Argument-Evidence (CAE), and Structured Assurance Case Metamodel (SACM). Among those languages, Structured Assurance Case Metamodel Notation (SACMN) can be considered as one of the most expressive languages in terms of its features relative to the other existing languages such as GSN and CAE. However, currently, there is a very limited tool that can be used to model assurance case using SACMN. Therefore, this study aims to analyze and develop a web-based graphic editor application as an alternative media for modeling assurance case using the SACMN language.

Keywords: Assurance Case Analysius, assurance case, Standard Assurance Case Metamodel Notation