Automotive Models in Practice

Robert Baillargeon Method Park America, USA

Abstract

The complexity of designing automotive electronic systems has increased significantly the last two decades. To address these challenges, technical practices and business models have developed to support the evolving landscape. Some of these elements are created to speed the development time such as AUTOSAR and GENIVI. Other standards are evolving to ensure products are produced effectively and to high quality and consistency such as ASPICE and ISO 26262. At the same time practices in Product Line Engineering, Automatic Code Generation, and integrated tool chains have changed the engineering practice and impact on a daily basis. Much of this work and evolution has a common thread in the creation and utilization of models. The ability to recognize and leverage this fact has begun to distinguish the leaders in this domain. Using some simple examples, we will illustrate the currently observed industry practices, challenges in adoption of technology, and the future opportunities to leverage models, and modeling practices, in the daily business of automotive electronic systems.