Information system architecture for developing reusable testplans for embedded software

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Abstract

Advanced control strategies and communication are integrated within the embedded controllers utilized for automotive control applications. These systems must be subjected to a thorough quality assurance regimen to ensure that the safety critical requirements have been satisfied. The information system architecture presented in this paper is designed to facilitate this process. The power of data analysis and information processing is utilized for achieving rapid validation and for the development of reusable testplans. Test prioritization and the ability to perform automated test generation are among the other key advantages offered by the system described. All these activities provide the needed synergies for meeting the quality assurance standards within the shorter development cycles required in today's competitive marketplace.

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