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Abstract

With the evolution of concepts in databases' field, the complexity of systems is also increasing along with their efficiency. In conjunction with consistency and concurrency related problems, a related issue is data verification and data validation. To cater to the data collisions and synchronization problems, data verification and validation comes to play its part. This paper is motivated to quantify and enhance one of the available "formal verification and validation approach for real time databases" presented by "Ribeiro Neto, Perkusich, Oliveira De Almeida and Perkusich". This existing V&V technique uses the object oriented data models for real time databases. In this paper, first of all we highlight the issues associated with the use of object models and also their impacts on the accuracy of this verification and validation approach which is being analyzed. Secondly, a comparison of different alternatives for real time data modeling is carried out and on the basis of this comparison, an alternative for minimizing or solving these issues of object data models is proposed. Thirdly, an additional step, for gathering requirements for real time databases is added in this V&V approach.

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