Towards an MDE-Based Approach to Test Entity Reconciliation Applications (Summary)*

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Summary of the Contribution

The management of large volumes of data has given rise to significant challenges to the entity reconciliation problem (which refers to combining data from different sources for a unified vision) due to the fact that the data are becoming more un-structured, un-clean and incomplete, need to be more linked, etc. Testing the applications that implement the entity reconciliation problem is crucial to ensure both the correctness of the reconciliation process and the quality of the reconciled data. In this paper.

In this paper, we have presented a work-in-progress that aims to test applications that implement an entity reconciliation problem to ensure the quality of both the applications and the reconciled data. The approach allows the creation of test models for integration testing, taking into account the problem specification and the data models of the data sources and the solution. These test models are composed of several business rules, called integration rules, which can be used to automatically derive the test requirements. Besides, as the integration rules also describe the business logic of the entity reconciliation process, they can be used to partially derive the implementation of the application.

The proposal is based on two main pillars: MDE and virtual graph. The support of automation of the MDE paradigm allows us to build very scalable solutions at a low cost, whilst the virtual graphs allow us to dynamically build the entity reconciliation solution at runtime.

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