Inconsistency detection of model and code via critic-based approach

ABSTRACT

Model Driven Software Engineering (MDSE) has become the state of the art in software abstraction and increasingly popular in industry and academia. MDSE concerns the use of models as first-class artifacts of software development process. The MDSE has been seen as a way to manage the increasing of software complexity. However, one of the challenges in MDSE is to generate a consistent model-implementation mapping between design model and source code. Source code is also an important software development artifact as it represents the executable system. Detecting inconsistencies between design models and source code is hard because both artifacts normally will have some changes or modifications. Several researchers have introduced various methods in managing the inconsistency of model-code. In this paper, we propose a critic-based approach to detect the inconsistencies between design model and source code. The critic-based approach will provide instant feedback that point out the inconsistencies between model and code.

Keyword: Critic-based approach; Inconsistency detection; Model-code consistency