A Generic Approach to Reuse Unified Modeling Language Components Following an Agile Process

Authors : Rim Bouhaouel, Naoufel Kraïem, Zuhoor Al Khanjari

Abstract : Unified Modeling Language (UML) is considered as one of the widespread modeling language standardized by the Object Management Group (OMG). Therefore, the model driving engineering (MDE) community attempts to provide reuse of UML diagrams, and do not construct it from scratch. The UML model appears according to a specific software development process. The existing method generation models focused on the different techniques of transformation without considering the development process. Our work aims to construct an UML component from fragments of UML diagram basing on an agile method. We define UML fragment as a portion of a UML diagram, which express a business target. To guide the generation of fragments of UML models using an agile process, we need a flexible approach, which adapts to the agile changes and covers all its activities. We use the software product line (SPL) to derive a fragment of process agile method. This paper explains our approach, named RECUP, to generate UML fragments following an agile process, and overviews the different aspects. In this paper, we present the approach and we define the different phases and artifacts.

Keywords : UML, component, fragment, agile, SPL

Conference Title : ICCSE 2016 : International Conference on Computer and Software Engineering

Conference Location : Zurich, Switzerland

Conference Dates : January 12-13, 2016