

Automated transformation approach from user requirement to behavior design

ABSTRACT

System design is an important process in the development of any type of computer related system and a process of gathering user requirement of the system that will be developed. System design is important in software development because it assists the developer to develop a system according to what are required by the user. One of main components in system design is Unified Modeling Language (UML) diagram. UML diagram is use as a model to show all important functions, process, flows, actors, classes that related to the system that will be built. This research is focusing on two types of diagram from behavior diagram which are Use case diagram and Activity diagram. Many developers have come out with a tool to help the analyst to draw the diagrams in the computer. Tools like Rational Rose, Lucidchart, UMLet are an example of the tool that have been developed. This step is still not preferred by system analyst because drawing use case diagram and activity diagram takes time and it must be done manually. Model Transformations is one of new finding in system design that intended to ease system analyst in modeling system design. This process is very useful in helping the analyst to reduce time in drawing use case and activity diagram. In this paper, we propose an approach to automatically transform user requirement into behavior model (Use Case diagram, Activity Diagram) and to develop a tool that will enable the transformation of the requirement into behavior model.

Keyword: Model transformation (MT); UML model; System design