

Design of object-oriented debugger model by using unified modeling language.

ABSTRACT

Debugging on computer program is a complex cognitive activity. Although it is complex, it's still one of the popular issues in computer programming task. It is a difficult task, which is to understand what the error is and how to solve such error? In computer programming the difficulty is to understand the Object-Oriented programming concept together with the programming logic. If the programming logic is incorrect, the program codes will have such error named as logic error and can caused highly maintenance cost. Logic error is a bug in a program that causes it to operate incorrectly, without terminating or crashing the program. It will produce unintended output or other behavior than what we are expecting. Method that use to develop a propose model Object Oriented Debugger is Unified Modeling Language (UML). It is the best choice model and suitable to design the Object Oriented Debugger which will be developed in an object oriented programming environment. The model will provide an ability to capture the characteristics of a system by using notations in the process of designing and implementing the system. The model of Object Oriented Debugger has been successfully implemented. This model has been developed using Unified Approach methodology, which consists of two methods such as Object-Oriented Analysis (OOA) and Object-Oriented Design (OOD). The model developed is to capture the structure and behavior of the Object Oriented Debugger by using the UML diagram. The model also can ease the readability of the documentation for the maintenance purposes. The design of the Object Oriented Debugger Model has been developed using the UML notation. It's consisting of two parts that are object-oriented analysis and object-oriented design. All the developing and designing are based on the model in UML.

Keyword: Object-oriented analysis and design; Unified modeling language; Debugging model; Logic error.