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SOFTWARE COMPLEXITY METRICS WITH STUDY THE AFFECT OF TIME PROCESSING

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Software complexity is the factor that decides the level of difficulty in developing software projects. In order to produce a good software product, several methods for software quality attributes need to be taken into consideration. Software complexity plays a vital role in controlling and managing software quality because it generally affects the software quality attributes like software reliability, testability and maintainability. Thus software quality assurance SQA needs the new strategies, tools methodologies and techniques applicable software development life cycle. In this paper we tested different methods of software complexity that concerns the software structured and software mathematical operations. As long as no general design standard exists, general threshold values will be difficult to determine. However, rules for writing code can be constructed and metrics can be used to assure that the rule is followed. In this paper we showed that the complexity of software will also depends on the type of mathematical operators and mathematical functions, where the time needed in processing the mathematical operators such as (+,-,*,/) are different, and the mathematical functions such as (sin, cos, tan, etc.) each have a different algorithm which cause a different processing time, as a result the software complexity will not only depends on the loops of programs and the number of operators, where the type of operators have strong affect on the program execution time. Which will affect on the software complexity, the software complexity will be decreased when the software used operators and functions needs shorter time, and this can be compared with the different languages (VB, Java, C++, etc.), the designer of the languages must supply the programmers with a table shows the time of processing needed to execute each operator and function in absolute unit of time.

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