Abstract

Assigning access specifier is not an easy task as it decides over all security of any software. Though there are many metrics tools available in the market to measure the security at early stage. But in this case assignment of access specifier is totally based on the human judgment and understanding. Objective of Secure Coupling Measurement Tool (SCMT) is to generate all possible solutions by applying Genetic Algorithm (GA). It is different than any other security Measurement Tool because it filters input design before applying metrics by GA. SCMT uses coupling, feature of OO design to determine the security at design level. It takes input as a UML class diagram with basic constraints and generates alternate solutions i.e. combinations. Tool also provides metrics at code level to compute the security at code level. Result of both the metrics give proof of secure design with the help of spider chart and line graph. These graphs suggest scope to change the design.

References

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Index Terms

Computer Science
Software Engineering
Keywords
Coupling  Quality  Security  Metrics