Abstract

In Computer Science, an emulator is hardware or software or both that duplicates (or emulates) the functions of one computer system (the guest) in another computer system (the host), different from the first one, so that the emulated behavior closely resembles the behavior of the real system (the guest). The computer systems are affected by software and hardware faults, solved in numerous mechanisms to handle. Fault injection is the method of testing such mechanisms, by providing artificial faults and errors (intending to mimic real faults and errors as closely as possible) in order to activate fault handling components. An emulator is object oriented software systems are used for fault emulation. In this paper first, the software components or classes are identified for fault injection by using the calculation is cohesion metrics. If the class is highly cohesive then that software component or class is used for fault emulation. In existing approaches cohesion measured from only structural information. Disadvantage is lack of high cohesion and lacking of measurement in cohesion. Here we propose unstructured information for cohesion measurement so achieving high cohesion and using this, accurate fault prediction can be performed.


Index Terms

Computer Science  Software Engineering

Keywords

Cohesion  Fault injection  Fault emulation