

DESIGN AND DEVELOPMENT OF SOFTWARE INSPECTION TOOL

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ABSTRACT

Software inspection is a technique for detecting problems in software early in the lifecycle. Software-inspection process is when the inspectors attempt to find defects by scrutinizing the code in detail. Often, a team will have a checklist of generic and domain-specific rules that must be followed, and the team's task is to find violations of those rules. This paper describes the design and implementation of a tool for helping inspectors navigate this complexity, by providing a means for a user to reason about the deep structure of the code at a high level of detail. This tool, named Code Surfer TM, provides access to and answers queries about—a range of different representations of a program, all created by performing advanced static analysis on the program.

KEYWORDS: Abstract Syntax Tree, Program Dependence Graph (PDG), Predecessor, Slicing, Successor