Composed Control Dependence Graph Generator

by

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ABSTRACT

Prior to doctoral work by Stafford, control dependence algorithms only worked for uni-
procedure analysis and inlined multi-procedure analysis. Inlined multi-procedure analysis
fails to address recursion, and in most cases can be too costly to perform. Stafford took a
compositional approach to multi-procedure analysis by developing a language-independent,
composed control dependence graph for any uni- or multi-procedure software component.
This paper details an effort to implement that algorithm in the C++ language using Stanford
University Intermediate Format (SUIF) and Machine SUIF (MachSUIF).