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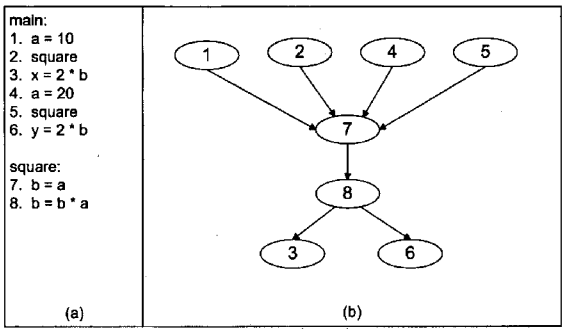

FIG. 1 (prior art)

(57) Abstract: In one embodiment of the invention a method comprising (1) receiving an unstructured binary code region that is single-threaded; (2) determining a slice criterion for the region; (3) determining a call edge, a return edge, and a fallthrough pseudo-edge for the region based on analysis of the region at a binary level; and (4) determining a context-sensitive slice based on the call edge, the return edge, the fallthrough pseudo-edge, and the slice criterion. Embodiments of the invention may include a program analysis technique that can be used to provide context-sensitive slicing of binary programs for slicing hot regions identified at runtime, with few underlying assumptions about the program from which the binary is derived. Also, in an embodiment a slicing method may include determining a context-insensitive slice, when a time limit is met, by determining the context-insensitive slice while treating call edges as a normal control flow edges.

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