

Abstract of the Disclosure

METHOD AND APPARATUS FOR GENERATING OPTIMIZED CODE WITH COMPOUND INSTRUCTION BY ELIMINATING NULLIFIED COMPOUND INSTRUCTION

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A method and apparatus for generating an optimized code with a compound instruction. More particularly, the apparatus for generating an optimized code with a compound instruction by eliminating nullified compound instruction during compound instruction selection includes an instruction selector for selecting a compatible compound instruction candidate from a candidate interference graph consisting of compound instruction candidates extracted from an intermediate representation tree, a register allocator for generating a code to which a register is allocated by allocating and merging a register to be used in the compound instruction candidate selected by the instruction selector, a nullified compound instruction detector for detecting a nullified compound instruction including a nullified move instruction in the code to which the register is allocated, and a final code generator for emitting the code to which the register is allocated as a final code, when the nullified compound instruction is not detected, wherein the nullified compound instruction detector eliminates the selected compound instruction candidate, and allows the instruction selector to select a new compound instruction candidate, when the nullified compound instruction is detected.

Figure 1