

A METHOD AND SYSTEM FOR RENAMING INSTRUCTIONS RELATED TO FIXED CONSTANTS

ABSTRACT

The invention relates to the technical field of microprocessors, in particular to a renaming method and system of fixed constant related instructions. The invention classifies the instructions in the decoder according to the characteristics of the instructions, and selects the instructions with fixed constants. In the renaming stage, the invention maps the source register and the destination register of such instructions to different fixed constant physical registers according to different fixed constants, updates the register renaming mapping tables SPEC_MAP and ARCH_MAP, and releases the physical registers corresponding to the fixed constant when the instruction is submitted, thereby realizing the function of the instruction. It solves the problem that the existing microprocessor can not classify the instructions, all the instructions are unified to the execution unit, and the execution of invalid instructions can not be eliminated. The invention classifies the instruction, and the fixed constant instruction does not need to enter the execution unit, but realizes the execution of the instruction through the renaming method, and the instruction execution efficiency is high.

(The most illustrative figure is FIG 4)