

METHOD, SYSTEM, PROGRAM, AND DATA STRUCTURES FOR  
TRANSFORMING AN INSTRUCTION IN A FIRST BIT ARCHITECTURE TO AN  
INSTRUCTION IN A SECOND BIT ARCHITECTURE

ABSTRACT

Disclosed is a method, system, program, and data structures for transforming an instruction in a first bit architecture, e.g., 32 bit, to an instruction in a second bit architecture, e.g., 64 bit. Code is transformed from an instruction in the first bit architecture having an operation code and at least one operand. A transformation table (30) is accessed (108) including information for transforming the instruction in the first bit architecture to the second bit architecture. The instruction in the first bit architecture is transformed (112, 114, 116, 118) to a corresponding instruction in the second bit architecture if the transform table includes information indicating to modify the instruction in the first bit architecture. The transformation is based in transformation operations that modify the instruction in the first bit architecture to generate the instruction in the second bit architecture.

Fig. 3