

An Object-oriented Knowledge Representation Method

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ABSTRACT

In this paper, a kind of OO knowledge representation method has been presented, which is named OORL. In the process of designing and developing the geotechnical engineering security inspection expert system development tool, in order to represent the domain knowledge still better, the OO technology has been used to rebuild the production rule and construct the OORL. In OORL, logic tree, production rules, methods, engineering examples, theoretical criteria and explaining engine are all encapsulated. The form of OORL is a binary. A single OORL can solely finish a relatively absolute reasoning procedure. It is convenient for OORL to be used to represent the procedural knowledge and the judgmental knowledge. OORL is designed aiming at the actual character of using the inspection reference to analyze and evaluate the safety condition of the geotechnical engineering. Compared with the traditional knowledge representation methods, OORL has more pertinence in this domain.

Keywords: Geotechnical engineering Object-oriented, Knowledge representation.