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Title: Modal Logic with Definite Descriptions, Tableaux, and Python

Abstract: We present a formalisation of modal logic with definite descriptions using the analytic tableaux method. We develop and implement in Python a system capable of checking the satisfiability of formulas of this logic. The proposed approach combines theoretical rigour with practical applicability, making it useful for both logical analysis and automated theorem proving. Moreover, the use of Python ensures flexibility and extensibility, allowing the tool to be adapted to various logical systems and tasks.