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Dagdilelis, V.; Satratzemi, M.

Post's machine: A didactic microworld as an introduction to formal programming.

Educ. Inf. Technol. 6, No. 2, 123-141 (2001).

Although formal programming is considered a recognised programming model, many avoid teaching it because of its very high mental cost. For that reason we developed a 'microscopic' environment based on Emil Post's theoretical machine as an introduction to formal methods of programming and in the framework of an introductory computer science course. In this paper, we present a small formal system for the development and simultaneous verification of algorithms; we give an example of problem solving in this environment; we present a small existing software simulating Post's machine; we propose two modules to facilitate the work in this environment; and finally, we present the didactic uses of Post's machine as an introduction to formal methods. (Authors' abstract)

Classification: P50

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