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### Development of an Artificial Market System for Analysis of Institutional Issues in Financial Markets

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In this paper, we first discuss the notion that artificial market systems should meet the requirements of fidelity, transparency, reproducibility, and traceability. Next, we introduce history of development of the artificial market system named U-Mart system that meet the requirements well, which have been developed by the U-Mart project. Next, we propose a novel U-Mart system called "U-Mart system version 3.0" to solve problems of conventional U-Mart systems. The computational experiments are carried out taking a market simulation where the futures price affects the spot price to show the effectiveness of U-Mart system version 3.0.

