U-Mart System: A Market Simulator for Analyzing and Designing Institutions

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Abstract

In this paper, we first discuss the notion that artificial market systems whose purposes are to design institutions for realistic markets should meet the requirements of *fidelity, transparency, reproducibility, traceability*, and *usability*. Next, we introduce two artificial market systems named the *Itayose* U-Mart system and the *Zaraba* U-Mart system that meet the requirements well, which have been developed by the U-Mart project. Finally, we point out that the U-Mart system is faced with the difficulties of *complexities of the system* and *frequent changes to specification* from the viewpoint of software engineering. In order to deal with the difficulties, we employed an object-oriented modeling method to design the U-Mart system and succeeded in constructing the system efficiently.

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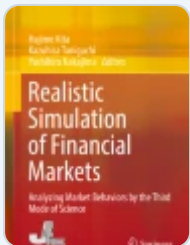
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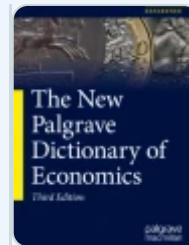**Building Artificial Markets for Evaluating Market Institutions and Trading Strategies**

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