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工程与应用

基于组态的机场散货物流仿真系统设计与实现

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摘要 结合机场散货物流现场实际情况和使用要求，采用组态技术开发了仿真系统。该系统应用遗传算法来合理分配货位地址，在使用组态软件建立仿真模型和数据字典的基础上，模拟了机场自动化立体仓库的作业过程，并设计了仿真动画、通讯和数据库接口等功能模块，最后进行了比较完善的测试，取得了满意的效果。该系统用于相关工程项目的开发和现场培训，可有效缩短工程周期，减少对生产运营造成的冲击，降低成本。

关键词 机场物流 自动化立体仓库 组态软件 仿真 遗传算法

分类号

Design and realization of airport buck cargo logistic simulation system based on configuration

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Abstract

Combining the field condition with operation requirements in airport buck cargo logistic，a simulation system was developed by adopting configuration technique.Genetic algorithm was utilized to assign freight address rationally.Configuration software was used for establishing simulation model and data dictionary.This simulation system mimicked the tasking process of the airport automatic storage & retrieval storage.It also had the functions such as communication interface and database interface.Finally，it was tested and satisfactory results were obtained.When applied to the development and field training of relevant engineering project，this system can shorten project cycle effectively，lower costs and reduce impact in production and operation.

Key words airport logistic AS/RS configuration software simulation genetic algorithm

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