



Home > Journal > Business & Economics | Computer Science & Communications > IIM

[Indexing](#) [View Papers](#) [Aims & Scope](#) [Editorial Board](#) [Guideline](#) [Article Processing Charges](#)

IIM > Vol.3 No.5, September 2011

OPEN ACCESS

## Simulation of a Flexible Manufacturing System with AutoMod Software

PDF (Size: 133KB) PP. 186-189 DOI: 10.4236/iim.2011.35022

### Author(s)

Zixia Chen, Changbin Jiang

### ABSTRACT

A flexible manufacturing system (FMS) is a highly automated, complex system. Simulation is a well-proven method to design or analyze an FMS. Deployment of a radio frequency identification (RFID) system in FMS produces large volumes of RFID data streams, which provide valuable information to improve the operation of FMS. Different frameworks are presented in this paper regarding the use of RFID data streams in an FMS simulation. Simulations are performed with AutoMod software. Related technical details are also presented. The paper's structure is compiled as the following steps: step 1, the introduction of AMHS, FMS and AutoMod; step 2, FMS simulation using AutoMod software; step 3, simulation frameworks driven by RFID data streams; step 4, conclusion.

### KEYWORDS

FMS, RFID, Data Stream, Simulation, AutoMod Software

### Cite this paper

Z. Chen and C. Jiang, "Simulation of a Flexible Manufacturing System with AutoMod Software," *Intelligent Information Management*, Vol. 3 No. 5, 2011, pp. 186-189. doi: 10.4236/iim.2011.35022.

### References

- [1] A. Z. Camdereli, " Misplaced Inventory and Radio-Frequency Identification (RFID) Technology: Information and Coordination," *Production and Operations Management*, Vol. 19, No. 1, 2010, pp. 1-18. doi:10.1111/j.1937-5956.2009.01057.x
- [2] M. Amini, R. F. Otondo, B. D. Janz and M. G. Pitts, " Simulation Modeling and Analysis: A Collateral Application and Exposition of RFID Technology," *Production and Operations Management*, Vol. 16, No. 5, 2007, pp. 586-598. doi:10.1111/j.1937-5956.2007.tb00282.x
- [3] Z.-X. Chen, " The Application of RFID Technology and Logistics," *Commercial Research*, Vol. 266, No. 6, 2003, pp. 138-142.
- [4] H. Amoozad-khalili, R. Tavakkoli-Moghaddam and N. Shahab-Dehkordi, " Influence of Radio Frequency Identification Technology in Logistics, Inventory Control and Supply Chain Optimization," *World Academy of Science, Engineering and Technology*, Vol. 69, No. 1, 2010, pp. 63-68.
- [5] C. Zang and Y. Fan, " Complex Event Processing in Enterprise Information Systems Based on RFID," *Enterprise Information Systems*, Vol. 1, No. 1, 2007, pp. 1-3.
- [6] O. Gunther, W. Kletti and U. Kubach, " RFID in Manufacturing," 1st Edition, Springer, Berlin, 2008, pp.1-23.
- [7] A. Pradhan, E. Ergen and B. Akinci, " Technological Assessment of Radio Frequency Identification Technology for Indoor Localization," *Journal of Computing in Civil Engineering*, Vol. 23, No. 3, 2009, pp. 230-238. doi:10.1061/(ASCE)0887-3801(2009)23:4(230)
- [8] Z.-X. Chen and J.-H. Gong, " Current Application Situation and under Certain Rules, Meaningful Events Trickle Development of Logistics Simulation Software," *Journal of Zhejiang Gongshang*

- [Open Special Issues](#)
- [Published Special Issues](#)
- [Special Issues Guideline](#)

[IIM Subscription](#)

[Most popular papers in IIM](#)

[About IIM News](#)

[Frequently Asked Questions](#)

[Recommend to Peers](#)

[Recommend to Library](#)

[Contact Us](#)

Downloads: 149,648

Visits: 373,154

[Sponsors, Associates, and Links >>](#)

University, Vol. 85, No. 4, 2007, pp. 29-34.

- [10] H.-J. Mao, H.-T. Guo, C. L. Ma, X.-H. Li and J. He, " Modeling and Analysis of Steel Logistics Center Based Automod Simulation Platform," Journal of Southeast University (Natural Science Edition), Vol. 38, No. 2, 2008, pp. 314-318.
- [11] Z.-Y. Jiang, H.-F. Kang and X.-C. Huang, " A Platform Non-ferrous Metal Three-Dimensional warehousing Depositing System Simulation Analysis Based on AutoMod Simulation," Machinery Design & Manufacture, No. 8, 2010, pp. 258-260.