

**Design of an RFID System for its application in a real distribution center**  
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**Abstract**

Distribution of products is a critical factor for companies worried about increasing their competitive advantage. In order to improve distribution centers' management, this paper proposes a control system, based on Intelligent Manufacturing Systems (IMS) and Multi-Agent Systems (MAS) enhanced with the use of Radio-Frequency Identification (RFID). This is what is called: RFID-IMS II. The best way to demonstrate the benefits of using this solution in management is to implement it in a real company. Before using the system in real facilities, an experimental platform is being used in laboratory which is composed of a virtual simulation, running in a computer and connected to a physical scaled model. The aim of this work is to develop an RFID System able to connect physical environment to distributed control agents. The design of the mentioned system includes the use of passive RFID tags and readers connected via Ethernet to the RFID Agents.